

Thr Gly Ile Lys His Glu Trp Gln Val Asn Gly Leu Asp Asp Ile Lys  
 130 135 140  
 Asp Arg Ser Thr Leu Gly Glu Lys Leu Gly Gly Asn Val Val Val Ser  
 145 150 155 160  
 Leu Glu Gly Lys Pro Leu  
 165 166

&lt;210&gt; 1208

&lt;211&gt; 476

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1208

Met Phe Arg Leu Asn Ser Leu Ser Ala Leu Ala Glu Leu Ala Val Gly  
 1 5 10 15  
 Ser Arg Trp Tyr His Gly Gly Ser Gln Pro Ile Gln Ile Arg Arg Arg  
 20 25 30  
 Leu Met Met Val Ala Phe Leu Gly Ala Ser Ala Val Thr Ala Ser Thr  
 35 40 45  
 Gly Leu Leu Trp Lys Arg Ala His Ala Glu Ser Pro Pro Cys Val Asp  
 50 55 60  
 Asn Leu Lys Ser Asp Ile Gly Asp Lys Gly Lys Asn Lys Asp Glu Gly  
 65 70 75 80  
 Asp Val Cys Asn His Glu Lys Lys Thr Ala Asp Leu Ala Pro His Pro  
 85 90 95  
 Glu Glu Lys Lys Lys Lys Arg Ser Gly Phe Arg Asp Arg Lys Val Met  
 100 105 110  
 Glu Tyr Glu Asn Arg Ile Arg Ala Tyr Ser Thr Pro Asp Lys Ile Phe  
 115 120 125  
 Arg Tyr Phe Ala Thr Leu Lys Val Ile Ser Glu Pro Gly Glu Ala Glu  
 130 135 140  
 Val Phe Met Thr Pro Glu Asp Phe Val Arg Ser Ile Thr Pro Asn Glu  
 145 150 155 160  
 Lys Gln Pro Glu His Leu Gly Leu Asp Gln Tyr Ile Ile Lys Arg Phe  
 165 170 175  
 Asp Gly Lys Lys Ile Ser Gln Glu Arg Glu Lys Phe Ala Asp Glu Gly  
 180 185 190  
 Ser Ile Phe Tyr Thr Leu Gly Glu Cys Gly Leu Ile Ser Phe Ser Asp  
 195 200 205  
 Tyr Ile Phe Leu Thr Thr Val Leu Ser Thr Pro Gln Arg Asn Phe Glu  
 210 215 220  
 Ile Ala Phe Lys Met Phe Asp Leu Asn Gly Asp Gly Glu Val Asp Met  
 225 230 235 240  
 Glu Glu Phe Glu Gln Val Gln Ser Ile Ile Arg Ser Gln Thr Ser Met  
 245 250 255  
 Gly Met Arg His Arg Asp Arg Pro Thr Thr Gly Asn Thr Leu Lys Ser  
 260 265 270  
 Gly Leu Cys Ser Ala Leu Thr Thr Tyr Phe Phe Gly Ala Asp Leu Lys  
 275 280 285  
 Gly Lys Leu Thr Ile Lys Asn Phe Leu Glu Phe Gln Arg Lys Leu Gln  
 290 295 300  
 His Asp Val Leu Lys Leu Glu Phe Glu Arg His Asp Pro Val Asp Gly  
 305 310 315 320  
 Arg Ile Thr Glu Arg Gln Phe Gly Gly Met Leu Leu Ala Tyr Ser Gly  
 325 330 335  
 Val Gln Ser Lys Lys Leu Thr Ala Met Gln Arg Gln Leu Lys Lys His  
 340 345 350  
 Phe Lys Glu Gly Lys Gly Leu Thr Phe Gln Glu Val Glu Asn Phe Phe  
 355 360 365  
 Thr Phe Leu Lys Asn Ile Asn Asp Val Asp Thr Ala Leu Ser Phe Tyr  
 370 375 380

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His Met Ala Gly Ala Ser Leu Asp Lys Val Thr Met Gln Gln Val Ala
385                      390                      395                      400
Arg Thr Val Ala Lys Val Glu Leu Ser Asp His Val Cys Asp Val Val
                      405                      410                      415
Phe Ala Leu Phe Asp Cys Asp Gly Asn Gly Glu Leu Ser Asn Lys Glu
                      420                      425                      430
Phe Val Ser Ile Met Lys Gln Arg Leu Met Arg Gly Leu Glu Lys Pro
                      435                      440                      445
Lys Asp Met Gly Phe Thr Arg Leu Met Gln Ala Met Trp Lys Cys Ala
                      450                      455                      460
Gln Glu Thr Ala Trp Asp Phe Ala Leu Pro Lys Gln
465                      470                      475 476

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<210> 1209
<211> 130
<212> PRT
<213> Homo sapiens

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<400> 1209
Met Ala Ala Val Leu Gly Ala Leu Gly Ala Thr Arg Arg Leu Leu Ala
1          5          10          15
Ala Leu Arg Gly Gln Ser Leu Gly Leu Ala Ala Met Ser Ser Gly Thr
          20          25          30
His Arg Leu Thr Ala Glu Glu Arg Asn Gln Ala Ile Leu Asp Leu Lys
          35          40          45
Ala Ala Gly Trp Ser Glu Leu Ser Glu Arg Asp Ala Ile Tyr Lys Glu
          50          55          60
Phe Ser Phe His Asn Phe Asn Gln Ala Phe Gly Phe Met Ser Arg Val
          65          70          75          80
Ala Leu Gln Ala Glu Lys Met Asn His His Pro Glu Trp Phe Asn Val
          85          90          95
Tyr Asn Lys Val Gln Ile Thr Leu Thr Ser His Asp Cys Gly Glu Leu
          100         105         110
Thr Lys Lys Asp Val Lys Leu Ala Lys Phe Ile Glu Lys Ala Ala Ala
          115         120         125
Ser Val
130

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<210> 1210
<211> 224
<212> PRT
<213> Homo sapiens

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<400> 1210
Met Trp Ala Ala Trp Thr Ser Glu Leu Ile Arg Glu Ile Ala Gly Leu
1          5          10          15
Val Arg Arg Tyr Asp Arg Asn Glu Ile Thr Ile Trp Ala Ser Glu Lys
          20          25          30
Arg Val Arg Pro Ala His Gly Ser Ser Gly Gly Pro Val Pro Glu Val
          35          40          45
Ser Lys Asp Thr His Glu Arg Arg Asp Gln Arg Glu Asp Glu Glu Leu
          50          55          60
Ile Arg Glu Ile Ala Gly Leu Val Arg Arg Tyr Asp Arg Asn Glu Ile
          65          70          75          80
Thr Ile Trp Ala Ser Glu Lys Ser Ser Val Met Lys Lys Cys Lys Ala
          85          90          95
Ala Asn Pro Glu Met Pro Leu Ser Phe Thr Ile Ser Arg Gly Phe Trp
          100         105         110

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Val	Leu	Leu	Ser	Tyr	Tyr	Leu	Gly	Leu	Leu	Pro	Phe	Ile	Pro	Ile	Pro
	115						120					125			
Glu	Lys	Phe	Phe	Phe	Cys	Phe	Leu	Pro	Asn	Ile	Ile	Asn	Arg	Thr	Tyr
	130						135					140			
Phe	Pro	Phe	Ser	Cys	Ser	Cys	Leu	Asn	Gln	Leu	Leu	Ala	Val	Val	Ser
	145				150					155					160
Lys	Trp	Leu	Ile	Met	Arg	Lys	Ser	Leu	Ile	Arg	His	Leu	Glu	Glu	Arg
				165					170					175	
Gly	Val	Gln	Val	Val	Phe	Trp	Cys	Leu	Asn	Glu	Glu	Ser	Asp	Phe	Glu
			180					185					190		
Ala	Ala	Phe	Ser	Val	Gly	Ala	Thr	Gly	Val	Ile	Thr	Asp	Tyr	Pro	Thr
		195					200					205			
Ala	Leu	Arg	His	Tyr	Leu	Asp	Asn	His	Gly	Pro	Ala	Ala	Arg	Thr	Ser
	210					215					220				224

&lt;210&gt; 1211

&lt;211&gt; 465

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1211

Met	Glu	Thr	Leu	Ser	Phe	Pro	Arg	Tyr	Asn	Val	Ala	Glu	Ile	Val	Ile
1				5					10					15	
His	Ile	Arg	Asn	Lys	Ile	Leu	Thr	Gly	Ala	Asp	Gly	Lys	Asn	Leu	Thr
			20					25					30		
Lys	Asn	Asp	Leu	Tyr	Pro	Asn	Pro	Lys	Pro	Glu	Val	Leu	His	Met	Ile
	35					40						45			
Tyr	Met	Arg	Ala	Leu	Gln	Ile	Val	Tyr	Gly	Ile	Arg	Leu	Glu	His	Phe
	50				55						60				
Tyr	Met	Met	Pro	Val	Asn	Ser	Glu	Val	Met	Tyr	Pro	His	Leu	Met	Glu
	65			70					75					80	
Ser	Phe	Leu	Pro	Phe	Ser	Asn	Leu	Val	Thr	His	Leu	Asp	Ser	Phe	Leu
				85					90					95	
Pro	Ile	Cys	Arg	Val	Asn	Asp	Phe	Glu	Thr	Ala	Asp	Ile	Leu	Cys	Pro
		100					105						110		
Lys	Ala	Lys	Arg	Thr	Ser	Arg	Phe	Leu	Ser	Gly	Ile	Ile	Asn	Phe	Ile
		115					120					125			
His	Phe	Arg	Glu	Ala	Cys	Arg	Glu	Thr	Tyr	Met	Glu	Phe	Leu	Trp	Gln
	130					135					140				
Tyr	Lys	Ser	Ser	Ala	Asp	Lys	Met	Gln	Gln	Leu	Asn	Ala	Ala	His	Gln
	145				150					155					160
Glu	Ala	Leu	Met	Lys	Leu	Glu	Arg	Leu	Asp	Ser	Val	Pro	Val	Glu	Glu
			165						170					175	
Gln	Glu	Glu	Phe	Lys	Gln	Leu	Ser	Asp	Gly	Ile	Gln	Glu	Leu	Gln	Gln
			180					185					190		
Ser	Leu	Asn	Gln	Asp	Phe	His	Gln	Lys	Thr	Ile	Val	Leu	Gln	Glu	Gly
		195					200					205			
Asn	Ser	Gln	Lys	Lys	Ser	Asn	Ile	Ser	Glu	Lys	Thr	Lys	Arg	Leu	Asn
	210				215						220				
Glu	Leu	Lys	Leu	Leu	Val	Ser	Leu	Lys	Glu	Ile	Gln	Glu	Ser	Leu	
	225				230				235					240	
Lys	Thr	Lys	Ile	Val	Asp	Ser	Pro	Glu	Lys	Leu	Lys	Asn	Tyr	Lys	Glu
			245					250						255	
Lys	Met	Lys	Asp	Thr	Val	Gln	Lys	Leu	Lys	Asn	Ala	Arg	Gln	Glu	Val
			260					265					270		
Val	Glu	Lys	Tyr	Glu	Ile	Tyr	Gly	Asp	Ser	Val	Asp	Cys	Leu	Pro	Ser
		275					280					285			
Cys	Gln	Leu	Glu	Val	Gln	Leu	Tyr	Gln	Lys	Lys	Ile	Gln	Asp	Leu	Ser
	290					295					300				

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Asp Asn Arg Glu Lys Leu Ala Ser Ile Leu Lys Glu Ser Leu Asn Leu
305                      310                      315                      320
Glu Asp Gln Ile Glu Ser Asp Glu Ser Glu Leu Lys Lys Leu Lys Thr
                      325                      330                      335
Glu Glu Asn Ser Phe Lys Arg Leu Met Ile Val Lys Lys Glu Lys Leu
                      340                      345                      350
Ala Thr Ala Gln Phe Lys Ile Asn Lys Lys His Glu Asp Val Lys Gln
                      355                      360                      365
Tyr Lys Arg Thr Val Ile Glu Asp Cys Asn Lys Val Gln Glu Lys Arg
                      370                      375                      380
Gly Ala Val Tyr Glu Arg Val Thr Thr Ile Asn His Glu Ile Gln Lys
385                      390                      395                      400
Ile Arg Leu Gly Ile Gln Gln Leu Lys Asp Ala Ala Glu Arg Glu Lys
                      405                      410                      415
Leu Lys Ser Gln Glu Ile Phe Leu Asn Leu Lys Thr Ala Leu Glu Lys
                      420                      425                      430
Tyr His Asp Gly Ile Glu Lys Ala Ala Glu Asp Ser Tyr Ala Lys Ile
                      435                      440                      445
Asp Glu Lys Thr Ala Glu Leu Lys Arg Lys Met Phe Lys Met Ser Thr
450                      455                      460                      464

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<210> 1212
<211> 2261
<212> PRT
<213> Homo sapiens

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<400> 1212
Met Ala Cys Trp Pro Gln Leu Arg Leu Leu Leu Trp Lys Asn Leu Thr
1      5      10      15
Phe Arg Arg Arg Gln Thr Cys Gln Leu Leu Leu Glu Val Ala Trp Pro
20     25     30
Leu Phe Ile Phe Leu Ile Leu Ile Ser Val Arg Leu Ser Tyr Pro Pro
35     40     45
Tyr Glu Gln His Glu Cys His Phe Pro Asn Lys Ala Met Pro Ser Ala
50     55     60
Gly Thr Leu Pro Trp Val Gln Gly Ile Ile Cys Asn Ala Asn Asn Pro
65     70     75     80
Cys Phe Arg Tyr Pro Thr Pro Gly Glu Ala Pro Gly Val Val Gly Asn
85     90     95
Phe Asn Lys Ser Ile Val Ala Arg Leu Phe Ser Asp Ala Arg Arg Leu
100    105    110
Leu Leu Tyr Ser Gln Lys Asp Thr Ser Met Lys Asp Met Arg Lys Val
115    120    125
Leu Arg Thr Leu Gln Gln Ile Lys Lys Ser Ser Ser Asn Leu Lys Leu
130    135    140
Gln Asp Phe Leu Val Asp Asn Glu Thr Phe Ser Gly Phe Leu Tyr His
145    150    155    160
Asn Leu Ser Leu Pro Lys Ser Thr Val Asp Lys Met Leu Arg Ala Asp
165    170    175
Val Ile Leu His Lys Val Phe Leu Gln Gly Tyr Gln Leu His Leu Thr
180    185    190
Ser Leu Cys Asn Gly Ser Lys Ser Glu Glu Met Ile Gln Leu Gly Asp
195    200    205
Gln Glu Val Ser Glu Leu Cys Gly Leu Pro Arg Glu Lys Leu Ala Ala
210    215    220
Ala Glu Arg Val Leu Arg Ser Asn Met Asp Ile Leu Lys Pro Ile Leu
225    230    235    240
Arg Thr Leu Asn Ser Thr Ser Pro Phe Pro Ser Lys Glu Leu Ala Glu
245    250    255

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Ala	Thr	Lys	Thr	Leu	Leu	His	Ser	Leu	Gly	Thr	Leu	Ala	Gln	Glu	Leu
			260					265					270		
Phe	Ser	Met	Arg	Ser	Trp	Ser	Asp	Met	Arg	Gln	Glu	Val	Met	Phe	Leu
		275					280					285			
Thr	Asn	Val	Asn	Ser	Ser	Ser	Ser	Ser	Thr	Gln	Ile	Tyr	Gln	Ala	Val
	290				295						300				
Ser	Arg	Ile	Val	Cys	Gly	His	Pro	Glu	Gly	Gly	Gly	Leu	Lys	Ile	Lys
305					310					315					320
Ser	Leu	Asn	Trp	Tyr	Glu	Asp	Asn	Asn	Tyr	Lys	Ala	Leu	Phe	Gly	Gly
				325					330					335	
Asn	Gly	Thr	Glu	Glu	Asp	Ala	Glu	Thr	Phe	Tyr	Asp	Asn	Ser	Thr	Thr
		340						345					350		
Pro	Tyr	Cys	Asn	Asp	Leu	Met	Lys	Asn	Leu	Glu	Ser	Ser	Pro	Leu	Ser
		355					360					365			
Arg	Ile	Ile	Trp	Lys	Ala	Leu	Lys	Pro	Leu	Leu	Val	Gly	Lys	Ile	Leu
	370					375					380				
Tyr	Thr	Pro	Asp	Thr	Pro	Ala	Thr	Arg	Gln	Val	Met	Ala	Glu	Val	Asn
385					390					395					400
Lys	Thr	Phe	Gln	Glu	Leu	Ala	Val	Phe	His	Asp	Leu	Glu	Gly	Met	Trp
			405						410					415	
Glu	Glu	Leu	Ser	Pro	Lys	Ile	Trp	Thr	Phe	Met	Glu	Asn	Ser	Gln	Glu
			420					425					430		
Met	Asp	Leu	Val	Arg	Met	Leu	Leu	Asp	Ser	Arg	Asp	Asn	Asp	His	Phe
		435				440						445			
Trp	Glu	Gln	Gln	Leu	Asp	Gly	Leu	Asp	Trp	Thr	Ala	Gln	Asp	Ile	Val
	450					455					460				
Ala	Phe	Leu	Ala	Lys	His	Pro	Glu	Asp	Val	Gln	Ser	Ser	Asn	Gly	Ser
465					470					475					480
Val	Tyr	Thr	Trp	Arg	Glu	Ala	Phe	Asn	Glu	Thr	Asn	Gln	Ala	Ile	Arg
				485					490					495	
Thr	Ile	Ser	Arg	Phe	Met	Glu	Cys	Val	Asn	Leu	Asn	Lys	Leu	Glu	Pro
		500						505					510		
Ile	Ala	Thr	Glu	Val	Trp	Leu	Ile	Asn	Lys	Ser	Met	Glu	Leu	Leu	Asp
		515					520					525			
Glu	Arg	Lys	Phe	Trp	Ala	Gly	Ile	Val	Phe	Thr	Gly	Ile	Thr	Pro	Gly
	530					535					540				
Ser	Ile	Glu	Leu	Pro	His	His	Val	Lys	Tyr	Lys	Ile	Arg	Met	Gly	Ile
545					550					555					560
Asp	Asn	Val	Glu	Arg	Thr	Asn	Lys	Ile	Lys	Asp	Gly	Tyr	Trp	Asp	Pro
				565					570					575	
Gly	Pro	Arg	Ala	Asp	Pro	Phe	Glu	Asp	Met	Arg	Tyr	Val	Trp	Gly	Gly
			580					585					590		
Phe	Ala	Tyr	Leu	Gln	Asp	Val	Val	Glu	Gln	Ala	Ile	Ile	Arg	Val	Leu
		595					600					605			
Thr	Gly	Thr	Glu	Lys	Lys	Thr	Gly	Val	Tyr	Met	Gln	Gln	Met	Pro	Tyr
	610					615					620				
Pro	Cys	Tyr	Val	Asp	Asp	Ile	Phe	Leu	Arg	Val	Met	Ser	Arg	Ser	Met
625					630					635					640
Pro	Leu	Phe	Met	Thr	Leu	Ala	Trp	Ile	Tyr	Ser	Val	Ala	Val	Ile	Ile
				645					650					655	
Lys	Gly	Ile	Val	Tyr	Glu	Lys	Glu	Ala	Arg	Leu	Lys	Glu	Thr	Met	Arg
			660					665					670		
Ile	Met	Gly	Leu	Asp	Asn	Ser	Ile	Leu	Trp	Phe	Ser	Trp	Phe	Ile	Ser
		675					680					685			
Ser	Leu	Ile	Pro	Leu	Leu	Val	Ser	Ala	Gly	Leu	Leu	Val	Val	Ile	Leu
	690					695					700				
Lys	Leu	Gly	Asn	Leu	Leu	Pro	Tyr	Ser	Asp	Pro	Ser	Val	Val	Phe	Val
705					710					715					720
Phe	Leu	Ser	Val	Phe	Ala	Val	Val	Thr	Ile	Leu	Gln	Cys	Phe	Leu	Ile
				725					730					735	
Ser	Thr	Leu	Phe	Ser	Arg	Ala	Asn	Leu	Ala	Ala	Ala	Cys	Gly	Gly	Ile
			740					745					750		
Ile	Tyr	Phe	Thr	Leu	Tyr	Leu	Pro	Tyr	Val	Leu	Cys	Val	Ala	Trp	Gln
		755					760						765		

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Asp Tyr Val Gly Phe Thr Leu Lys Ile Phe Ala Ser Leu Leu Ser Pro
770          775          780
Val Ala Phe Gly Phe Gly Cys Glu Tyr Phe Ala Leu Phe Glu Glu Gln
785          790          795          800
Gly Ile Gly Val Gln Trp Asp Asn Leu Phe Glu Ser Pro Val Glu Glu
805          810          815
Asp Gly Phe Asn Leu Thr Thr Ser Val Ser Met Met Leu Phe Asp Thr
820          825          830
Phe Leu Tyr Gly Val Met Thr Trp Tyr Ile Glu Ala Val Phe Pro Gly
835          840          845
Gln Tyr Gly Ile Pro Arg Pro Trp Tyr Phe Pro Cys Thr Lys Ser Tyr
850          855          860
Trp Phe Gly Glu Glu Ser Asp Glu Lys Ser His Pro Gly Ser Asn Gln
865          870          875          880
Lys Arg Ile Ser Glu Ile Cys Met Glu Glu Glu Pro Thr His Leu Lys
885          890          895
Leu Gly Val Ser Ile Gln Asn Leu Val Lys Val Tyr Arg Asp Gly Met
900          905          910
Lys Val Ala Val Asp Gly Leu Ala Leu Asn Phe Tyr Glu Gly Gln Ile
915          920          925
Thr Ser Phe Leu Gly His Asn Gly Ala Gly Lys Thr Thr Thr Met Ser
930          935          940
Ile Leu Thr Gly Leu Phe Pro Pro Thr Ser Gly Thr Ala Tyr Ile Leu
945          950          955          960
Gly Lys Asp Ile Arg Ser Glu Met Ser Thr Ile Arg Gln Asn Leu Gly
965          970          975
Val Cys Pro Gln His Asn Val Leu Phe Asp Met Leu Thr Val Glu Glu
980          985          990
His Ile Trp Phe Tyr Ala Arg Leu Lys Gly Leu Ser Glu Lys His Val
995          1000          1005
Lys Ala Glu Met Glu Gln Met Ala Leu Asp Val Gly Leu Pro Ser Ser
1010          1015          1020
Lys Leu Lys Ser Lys Thr Ser Gln Leu Ser Gly Gly Met Gln Arg Lys
1025          1030          1035          1040
Leu Ser Val Ala Leu Ala Phe Val Gly Gly Ser Lys Val Val Ile Leu
1045          1050          1055
Asp Glu Pro Thr Ala Gly Val Asp Pro Tyr Ser Arg Arg Gly Ile Trp
1060          1065          1070
Glu Leu Leu Leu Lys Tyr Arg Gln Gly Arg Thr Ile Ile Leu Ser Thr
1075          1080          1085
His His Met Asp Glu Ala Asp Val Leu Gly Asp Arg Ile Ala Ile Ile
1090          1095          1100
Ser His Gly Lys Leu Cys Cys Val Gly Ser Ser Leu Phe Leu Lys Asn
1105          1110          1115          1120
Gln Leu Gly Thr Gly Tyr Tyr Leu Thr Leu Val Lys Lys Asp Val Glu
1125          1130          1135
Ser Ser Leu Ser Ser Cys Arg Asn Ser Ser Ser Thr Val Ser Tyr Leu
1140          1145          1150
Lys Lys Glu Asp Ser Val Ser Gln Ser Ser Ser Asp Ala Gly Leu Gly
1155          1160          1165
Ser Asp His Glu Ser Asp Thr Leu Thr Ile Asp Val Ser Ala Ile Ser
1170          1175          1180
Asn Leu Ile Arg Lys His Val Ser Glu Ala Arg Leu Val Glu Asp Ile
1185          1190          1195          1200
Gly His Glu Leu Thr Tyr Val Leu Pro Tyr Glu Ala Ala Lys Glu Gly
1205          1210          1215
Ala Phe Val Glu Leu Phe His Glu Ile Asp Asp Arg Leu Ser Asp Leu
1220          1225          1230
Gly Ile Ser Ser Tyr Gly Ile Ser Glu Thr Thr Leu Glu Glu Ile Phe
1235          1240          1245
Leu Lys Val Ala Glu Glu Ser Gly Val Asp Ala Glu Thr Ser Asp Gly
1250          1255          1260
Thr Leu Pro Ala Arg Arg Asn Arg Arg Ala Phe Gly Asp Lys Gln Ser
1265          1270          1275          1280

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Cys Leu Arg Pro Phe Thr Glu Asp Asp Ala Ala Asp Pro Asn Asp Ser  
 1285 1290 1295  
 Asp Ile Asp Pro Glu Ser Arg Glu Thr Asp Leu Leu Ser Gly Met Asp  
 1300 1305 1310  
 Gly Lys Gly Ser Tyr Gln Val Lys Gly Trp Lys Leu Thr Gln Gln Gln  
 1315 1320 1325  
 Phe Val Ala Leu Leu Trp Lys Arg Leu Leu Ile Ala Arg Arg Ser Arg  
 1330 1335 1340  
 Lys Gly Phe Phe Ala Gln Ile Val Leu Pro Ala Val Phe Val Cys Ile  
 1345 1350 1355 1360  
 Ala Leu Val Phe Ser Leu Ile Val Pro Pro Phe Gly Lys Tyr Pro Ser  
 1365 1370 1375  
 Leu Glu Leu Gln Pro Trp Met Tyr Asn Glu Gln Tyr Thr Phe Val Ser  
 1380 1385 1390  
 Asn Asp Ala Pro Glu Asp Thr Gly Thr Leu Glu Leu Leu Asn Ala Leu  
 1395 1400 1405  
 Thr Lys Asp Pro Gly Phe Gly Thr Arg Cys Met Glu Gly Asn Pro Ile  
 1410 1415 1420  
 Pro Asp Thr Pro Cys Gln Ala Gly Glu Glu Glu Trp Thr Thr Ala Pro  
 1425 1430 1435 1440  
 Val Pro Gln Thr Ile Met Asp Leu Phe Gln Asn Gly Asn Trp Thr Met  
 1445 1450 1455  
 Gln Asn Pro Ser Pro Ala Cys Gln Cys Ser Ser Asp Lys Ile Lys Lys  
 1460 1465 1470  
 Met Leu Pro Val Cys Pro Pro Gly Ala Gly Gly Leu Pro Pro Pro Gln  
 1475 1480 1485  
 Arg Lys Gln Asn Thr Ala Asp Ile Leu Gln Asp Leu Thr Gly Arg Asn  
 1490 1495 1500  
 Ile Ser Asp Tyr Leu Val Lys Thr Tyr Val Gln Ile Ile Ala Lys Ser  
 1505 1510 1515 1520  
 Leu Lys Asn Lys Ile Trp Val Asn Glu Phe Arg Tyr Gly Gly Phe Ser  
 1525 1530 1535  
 Leu Gly Val Ser Asn Thr Gln Ala Leu Pro Pro Ser Gln Glu Val Asn  
 1540 1545 1550  
 Asp Ala Thr Lys Gln Met Lys Lys His Leu Lys Leu Ala Lys Asp Ser  
 1555 1560 1565  
 Ser Ala Asp Arg Phe Leu Asn Ser Leu Gly Arg Phe Met Thr Gly Leu  
 1570 1575 1580  
 Asp Thr Arg Asn Asn Val Lys Val Trp Phe Asn Asn Lys Gly Trp His  
 1585 1590 1595 1600  
 Ala Ile Ser Ser Phe Leu Asn Val Ile Asn Asn Ala Ile Leu Arg Ala  
 1605 1610 1615  
 Asn Leu Gln Lys Gly Glu Asn Pro Ser His Tyr Gly Ile Thr Ala Phe  
 1620 1625 1630  
 Asn His Pro Leu Asn Leu Thr Lys Gln Gln Leu Ser Glu Val Ala Pro  
 1635 1640 1645  
 Met Thr Thr Ser Val Asp Val Leu Val Ser Ile Cys Val Ile Phe Ala  
 1650 1655 1660  
 Met Ser Phe Val Pro Ala Ser Phe Val Val Phe Leu Ile Gln Glu Arg  
 1665 1670 1675 1680  
 Val Ser Lys Ala Lys His Leu Gln Phe Ile Ser Gly Val Lys Pro Val  
 1685 1690 1695  
 Ile Tyr Trp Leu Ser Asn Phe Val Trp Asp Met Cys Asn Tyr Val Val  
 1700 1705 1710  
 Pro Ala Thr Leu Val Ile Ile Ile Phe Ile Cys Phe Gln Gln Lys Ser  
 1715 1720 1725  
 Tyr Val Ser Ser Thr Asn Leu Pro Val Leu Ala Leu Leu Leu Leu  
 1730 1735 1740  
 Tyr Gly Trp Ser Ile Thr Pro Leu Met Tyr Pro Ala Ser Phe Val Phe  
 1745 1750 1755 1760  
 Lys Ile Pro Ser Thr Ala Tyr Val Val Leu Thr Ser Val Asn Leu Phe  
 1765 1770 1775  
 Ile Gly Ile Asn Gly Ser Val Ala Thr Phe Val Leu Glu Leu Phe Thr  
 1780 1785 1790

Asp Asn Lys Leu Asn Asn Ile Asn Asp Ile Leu Lys Ser Val Phe Leu  
 1795 1800 1805  
 Ile Phe Pro His Phe Cys Leu Gly Arg Gly Leu Ile Asp Met Val Lys  
 1810 1815 1820  
 Asn Gln Ala Met Ala Asp Ala Leu Glu Arg Phe Gly Glu Asn Arg Phe  
 1825 1830 1835 1840  
 Val Ser Pro Leu Ser Trp Asp Leu Val Gly Arg Asn Leu Phe Ala Met  
 1845 1850 1855  
 Ala Val Glu Gly Val Val Phe Phe Leu Ile Thr Val Leu Ile Gln Tyr  
 1860 1865 1870  
 Arg Phe Phe Ile Arg Pro Arg Pro Val Asn Ala Lys Leu Ser Pro Leu  
 1875 1880 1885  
 Asn Asp Glu Asp Glu Asp Val Arg Arg Glu Arg Gln Arg Ile Leu Asp  
 1890 1895 1900  
 Gly Gly Gly Gln Asn Asp Ile Leu Glu Ile Lys Glu Leu Thr Lys Ile  
 1905 1910 1915 1920  
 Tyr Arg Arg Lys Arg Lys Pro Ala Val Asp Arg Ile Cys Val Gly Ile  
 1925 1930 1935  
 Pro Pro Gly Glu Cys Phe Gly Leu Leu Gly Val Asn Gly Ala Gly Lys  
 1940 1945 1950  
 Ser Ser Thr Phe Lys Met Leu Thr Gly Asp Thr Thr Val Thr Arg Gly  
 1955 1960 1965  
 Asp Ala Phe Leu Asn Arg Asn Ser Ile Leu Ser Asn Ile His Glu Val  
 1970 1975 1980  
 His Gln Asn Met Gly Tyr Cys Pro Gln Phe Asp Ala Ile Thr Glu Leu  
 1985 1990 1995 2000  
 Leu Thr Gly Arg Glu His Val Glu Phe Phe Ala Leu Leu Arg Gly Val  
 2005 2010 2015  
 Pro Glu Lys Glu Val Gly Lys Val Gly Glu Trp Ala Ile Arg Lys Leu  
 2020 2025 2030  
 Gly Leu Val Lys Tyr Gly Glu Lys Tyr Ala Gly Asn Tyr Ser Gly Gly  
 2035 2040 2045  
 Asn Lys Arg Lys Leu Ser Thr Ala Met Ala Leu Ile Gly Gly Pro Pro  
 2050 2055 2060  
 Val Val Phe Leu Asp Glu Pro Thr Thr Gly Met Asp Pro Lys Ala Arg  
 2065 2070 2075 2080  
 Arg Phe Leu Trp Asn Cys Ala Leu Ser Val Val Lys Glu Gly Arg Ser  
 2085 2090 2095  
 Val Val Leu Thr Ser His Ser Met Glu Glu Cys Glu Ala Leu Cys Thr  
 2100 2105 2110  
 Arg Met Ala Ile Met Val Asn Gly Arg Phe Arg Cys Leu Gly Ser Val  
 2115 2120 2125  
 Gln His Leu Lys Asn Arg Phe Gly Asp Gly Tyr Thr Ile Val Val Arg  
 2130 2135 2140  
 Ile Ala Gly Ser Asn Pro Asp Leu Lys Pro Val Gln Asp Phe Phe Gly  
 2145 2150 2155 2160  
 Leu Ala Phe Pro Gly Ser Val Pro Lys Glu Lys His Arg Asn Met Leu  
 2165 2170 2175  
 Gln Tyr Gln Leu Pro Ser Ser Leu Ser Ser Leu Ala Arg Ile Phe Ser  
 2180 2185 2190  
 Ile Leu Ser Gln Ser Lys Lys Arg Leu His Ile Glu Asp Tyr Ser Val  
 2195 2200 2205  
 Ser Gln Thr Thr Leu Asp Gln Val Phe Val Asn Phe Ala Lys Asp Gln  
 2210 2215 2220  
 Ser Asp Asp Asp His Leu Lys Asp Leu Ser Leu His Lys Asn Gln Thr  
 2225 2230 2235 2240  
 Val Val Asp Val Ala Val Leu Thr Ser Phe Leu Gln Asp Glu Lys Val  
 2245 2250 2255  
 Lys Glu Ser Tyr Val  
 22602261

<211> 415  
 <212> PRT  
 <213> Homo sapiens

<400> 1213  
 Met Pro Gly Asn His Ser Ala Pro Ser Pro Gly Leu Ser Leu Thr Leu  
 1 5 10 15  
 Cys Pro Ala Ala Ser Glu His Ser Gly Ile Pro Gly Ser Thr His Ala  
 20 25 30  
 Cys Ala Asp Ala Trp Val Ala Gly Ser Tyr Pro Glu Gly Ala Pro Ala  
 35 40 45  
 Val Leu Ala Asp Lys Arg Gln Phe Gly Ser Arg Phe Leu Arg Asp  
 50 55 60  
 Pro Ala Arg Val Phe His His Asn Ala Trp Asp Asn Val Glu Trp Ser  
 65 70 75 80  
 Glu Glu Gln Ala Ala Ala Ala Glu Arg Lys Val Gln Glu Asn Ser Ile  
 85 90 95  
 Gln Arg Val Cys Gln Glu Lys Gln Val Asp Tyr Glu Ile Asn Ala His  
 100 105 110  
 Lys Tyr Trp Asn Asp Phe Tyr Lys Ile His Glu Asn Gly Phe Phe Lys  
 115 120 125  
 Asp Arg His Trp Leu Phe Thr Glu Phe Pro Glu Leu Ala Pro Ser Gln  
 130 135 140  
 Asn Gln Asn His Leu Lys Asp Trp Phe Leu Glu Asn Lys Ser Glu Val  
 145 150 155 160  
 Pro Glu Cys Arg Asn Asn Glu Asp Gly Pro Gly Leu Ile Met Glu Glu  
 165 170 175  
 Gln His Lys Cys Ser Ser Lys Ser Leu Glu His Lys Thr Gln Thr Pro  
 180 185 190  
 Pro Val Glu Glu Asn Val Thr Gln Lys Ile Ser Asp Leu Glu Ile Cys  
 195 200 205  
 Ala Asp Glu Phe Pro Gly Ser Ser Ala Thr Tyr Arg Ile Leu Glu Val  
 210 215 220  
 Gly Cys Gly Val Gly Asn Thr Val Phe Pro Ile Leu Gln Thr Asn Asn  
 225 230 235 240  
 Asp Pro Gly Leu Phe Val Tyr Cys Cys Asp Phe Ser Ser Thr Ala Ile  
 245 250 255  
 Glu Leu Val Gln Thr Asn Ser Glu Tyr Asp Pro Ser Arg Cys Phe Ala  
 260 265 270  
 Phe Val His Asp Leu Cys Asp Glu Lys Ser Tyr Pro Val Pro Lys  
 275 280 285  
 Gly Ser Leu Asp Ile Ile Ile Leu Ile Phe Val Leu Ser Ala Ile Val  
 290 295 300  
 Pro Asp Lys Met Gln Lys Ala Ile Asn Arg Leu Ser Arg Leu Leu Lys  
 305 310 315 320  
 Pro Gly Gly Met Val Leu Leu Arg Asp Tyr Gly Arg Tyr Asp Met Ala  
 325 330 335  
 Gln Leu Arg Phe Lys Lys Gly Gln Cys Leu Ser Gly Asn Phe Tyr Val  
 340 345 350  
 Arg Gly Asp Gly Thr Arg Val Tyr Phe Phe Thr Gln Glu Glu Leu Asp  
 355 360 365  
 Thr Leu Phe Thr Thr Ala Gly Leu Glu Lys Val Gln Asn Leu Val Asp  
 370 375 380  
 Arg Arg Leu Gln Val Asn Arg Gly Lys Gln Leu Thr Met Tyr Arg Val  
 385 390 395 400  
 Trp Ile Gln Cys Lys Tyr Cys Lys Pro Leu Leu Ser Ser Thr Ser  
 405 410 415

<210> 1214  
 <211> 387  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1214

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Met Glu Val Leu Ala Ala Glu Thr Thr Ser Gln Gln Glu Arg Leu Gln
 1          5          10          15
Ala Ile Ala Glu Lys Arg Lys Arg Gln Ala Glu Ile Glu Asn Lys Arg
 20          25          30
Arg Gln Leu Glu Asp Glu Arg Arg Gln Leu Gln His Leu Lys Ser Lys
 35          40          45
Ala Leu Arg Glu Arg Trp Leu Leu Glu Gly Thr Pro Ser Ser Ala Ser
 50          55          60
Glu Gly Asp Glu Asp Leu Arg Arg Gln Met Gln Asp Asp Glu Gln Lys
 65          70          75          80
Thr Arg Leu Leu Glu Asp Ser Val Ser Arg Leu Glu Lys Glu Ile Glu
 85          90          95
Val Leu Glu Arg Gly Asp Ser Ala Pro Ala Ala Ala Lys Glu Asn Ala
100          105          110
Ala Ala Pro Ser Pro Val Arg Ala Pro Ala Pro Ser Pro Ala Lys Glu
115          120          125
Glu Arg Lys Thr Glu Val Val Met Asn Ser Gln Gln Thr Pro Val Gly
130          135          140
Thr Pro Lys Asp Lys Arg Val Ser Asn Thr Pro Leu Arg Thr Val Asp
145          150          155          160
Gly Ser Pro Met Met Lys Ala Ala Met Tyr Ser Val Glu Ile Thr Val
165          170          175
Glu Lys Asp Lys Val Thr Gly Glu Thr Arg Val Leu Ser Ser Thr Thr
180          185          190
Leu Leu Pro Arg Gln Pro Leu Pro Leu Gly Ile Lys Val Tyr Glu Asp
195          200          205
Glu Thr Lys Val Val His Ala Val Asp Gly Thr Ala Glu Asn Gly Ile
210          215          220
His Pro Leu Ser Ser Ser Glu Val Asp Glu Leu Ile His Lys Ala Asp
225          230          235          240
Glu Val Thr Leu Ser Glu Ala Gly Ser Thr Ala Gly Ala Ala Glu Thr
245          250          255
Arg Gly Ala Val Glu Gly Ala Ala Arg Thr Thr Pro Ser Arg Arg Glu
260          265          270
Ile Thr Gly Val Gln Ala Gln Pro Gly Glu Ala Thr Ser Gly Pro Pro
275          280          285
Gly Ile Gln Pro Gly Gln Glu Pro Pro Val Thr Met Ile Phe Met Gly
290          295          300
Tyr Gln Asn Val Glu Asp Glu Ala Glu Thr Lys Lys Val Leu Gly Leu
305          310          315          320
Gln Asp Thr Ile Thr Ala Glu Leu Val Val Ile Glu Asp Ala Ala Glu
325          330          335
Pro Lys Glu Pro Ala Pro Pro Asn Gly Ser Ala Ala Glu Pro Pro Thr
340          345          350
Glu Ala Ala Ser Arg Glu Glu Asn Gln Ala Gly Pro Glu Ala Thr Thr
355          360          365
Ser Asp Pro Gln Asp Leu Asp Met Lys Lys His Arg Cys Lys Cys Cys
370          375          380
Ser Ile Met
385          387

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&lt;210&gt; 1215

&lt;211&gt; 454

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1215

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Met Gly Arg Arg Met Arg Gly Ala Ala Ala Thr Ala Gly Leu Trp Leu
 1          5          10          15
Leu Ala Leu Gly Ser Leu Leu Ala Leu Trp Gly Gly Leu Leu Pro Pro
          20          25          30
Arg Thr Glu Leu Pro Ala Ser Arg Pro Pro Glu Asp Arg Leu Pro Arg
          35          40          45
Arg Pro Ala Arg Ser Gly Gly Pro Ala Pro Ala Pro Arg Phe Pro Leu
          50          55          60
Pro Pro Pro Leu Ala Trp Asp Ala Arg Gly Gly Ser Leu Lys Thr Phe
          65          70          75          80
Arg Ala Leu Leu Thr Leu Ala Ala Gly Ala Asp Gly Pro Pro Arg Gln
          85          90          95
Ser Arg Ser Glu Pro Arg Trp His Val Ser Ala Arg Gln Pro Arg Pro
          100          105          110
Glu Glu Ser Ala Ala Val His Gly Gly Val Phe Trp Ser Arg Gly Leu
          115          120          125
Glu Glu Gln Val Pro Pro Gly Phe Ser Glu Ala Gln Ala Ala Ala Trp
          130          135          140
Leu Glu Ala Ala Arg Gly Ala Arg Met Val Ala Leu Glu Arg Gly Gly
          145          150          155          160
Cys Gly Arg Ser Ser Asn Arg Leu Ala Arg Phe Ala Asp Gly Thr Arg
          165          170          175
Ala Cys Val Arg Tyr Gly Ile Asn Pro Glu Gln Ile Gln Gly Glu Ala
          180          185          190
Leu Ser Tyr Tyr Leu Ala Arg Leu Leu Gly Leu Gln Arg His Val Pro
          195          200          205
Pro Leu Ala Leu Ala Arg Val Glu Ala Arg Gly Ala Gln Trp Ala Gln
          210          215          220
Val Gln Glu Glu Leu Arg Ala Ala His Trp Thr Glu Gly Ser Val Val
          225          230          235          240
Ser Leu Thr Arg Trp Leu Pro Asn Leu Thr Asp Val Val Val Pro Ala
          245          250          255
Pro Trp Arg Ser Glu Asp Gly Arg Leu Arg Pro Leu Arg Asp Ala Gly
          260          265          270
Gly Glu Leu Ala Asn Leu Ser Gln Ala Glu Leu Val Asp Leu Val Gln
          275          280          285
Trp Thr Asp Leu Ile Leu Phe Asp Tyr Leu Thr Ala Asn Phe Asp Arg
          290          295          300
Leu Val Ser Asn Leu Phe Ser Leu Gln Trp Asp Pro Arg Val Met Gln
          305          310          315          320
Arg Ala Thr Ser Asn Leu His Arg Gly Pro Gly Gly Ala Leu Val Phe
          325          330          335
Leu Asp Asn Glu Ala Gly Leu Val His Gly Tyr Arg Val Ala Gly Met
          340          345          350
Trp Asp Lys Tyr Asn Glu Pro Leu Leu Gln Ser Val Cys Val Phe Arg
          355          360          365
Glu Arg Thr Ala Arg Arg Val Leu Glu Leu His Arg Gly Gln Asp Ala
          370          375          380
Ala Ala Arg Leu Leu Arg Leu Tyr Arg Arg His Glu Pro Arg Phe Pro
          385          390          395          400
Glu Leu Ala Ala Leu Ala Asp Pro His Ala Gln Leu Leu Gln Arg Arg
          405          410          415
Leu Asp Phe Leu Ala Lys His Ile Leu His Cys Lys Ala Lys Tyr Gly
          420          425          430
Arg Arg Ser Gly Asp Leu Val Ser Pro Gly Gly Lys Glu Arg Asp Leu
          435          440          445
Gly Leu Gly Tyr Gly *
          450          453

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&lt;210&gt; 1216

&lt;211&gt; 314

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1216

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Met Gly Ala Pro Val Trp Tyr Leu Val Ala Ala Ala Leu Leu Val Gly
 1           5           10           15
Phe Ile Leu Phe Leu Thr Arg Ser Arg Gly Arg Ala Ala Ser Ala Gly
          20           25           30
Gln Glu Pro Leu His Asn Glu Glu Leu Ala Gly Ala Gly Arg Val Ala
          35           40           45
Gln Pro Gly Pro Leu Glu Pro Glu Glu Pro Arg Ala Gly Gly Arg Pro
          50           55           60
Arg Arg Arg Arg Asp Leu Gly Ser Arg Leu Gln Ala Gln Arg Arg Ala
 65           70           75           80
Gln Arg Val Ala Trp Ala Glu Ala Asp Glu Asn Glu Glu Glu Ala Val
          85           90           95
Ile Leu Ala Gln Glu Glu Glu Gly Val Glu Lys Pro Ala Glu Thr His
          100          105          110
Leu Ser Gly Lys Ile Gly Ala Lys Lys Leu Arg Lys Leu Glu Glu Lys
 115          120          125
Gln Ala Arg Lys Ala Gln Arg Glu Ala Glu Glu Ala Glu Arg Glu Glu
 130          135          140
Arg Lys Arg Leu Glu Ser Gln Arg Glu Ala Glu Trp Lys Lys Glu Glu
 145          150          155          160
Glu Arg Leu Arg Leu Glu Glu Glu Gln Lys Glu Glu Glu Glu Arg Lys
          165          170          175
Ala Arg Glu Glu Gln Ala Gln Arg Glu His Glu Glu Tyr Leu Lys Leu
          180          185          190
Lys Glu Ala Phe Val Val Glu Glu Gly Val Gly Glu Thr Met Thr
 195          200          205
Glu Glu Gln Ser Gln Ser Phe Leu Thr Glu Phe Ile Asn Tyr Ile Lys
 210          215          220
Gln Ser Lys Val Val Leu Leu Glu Asp Leu Ala Ser Gln Val Gly Leu
 225          230          235          240
Arg Thr Gln Ala Thr Ile Asn Arg Ile Gln Asp Leu Leu Ala Glu Gly
          245          250          255
Thr Ile Thr Gly Val Ile Asp Asp Arg Gly Lys Phe Ile Tyr Ile Thr
          260          265          270
Pro Glu Glu Leu Ala Ala Val Ala Asn Phe Ile Arg Gln Arg Gly Arg
 275          280          285
Val Ser Ile Ala Glu Leu Ala Gln Ala Ser Asn Ser Leu Ile Ala Trp
 290          295          300
Gly Arg Glu Ser Pro Ala Gln Ala Pro Ala
 305          310          314

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&lt;210&gt; 1217

&lt;211&gt; 1380

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1217

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Met Ser Leu Val Asn Phe Glu Pro Ala Ala Arg Arg Ala Ser Asn Ile
 1           5           10           15
Cys Asp Thr Asp Ser His Val Ser Ser Ser Thr Ser Val Arg Phe Tyr
          20           25           30
Pro His Asp Val Leu Ser Leu Pro Gln Ile Arg Leu Asn Arg Leu Leu
          35           40           45
Thr Ile Asp Thr Asp Leu Leu Glu Gln Gln Asp Ile Asp Leu Ser Pro
          50           55           60
Asp Leu Ala Ala Thr Tyr Gly Pro Thr Glu Glu Ala Ala Gln Lys Val
 65           70           75           80

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Lys His Tyr Tyr Arg Phe Trp Ile Leu Pro Gln Leu Trp Ile Gly Ile  
 85 90 95  
 Asn Phe Asp Arg Leu Thr Leu Leu Ala Leu Phe Asp Arg Asn Arg Glu  
 100 105 110  
 Ile Leu Glu Asn Val Leu Ala Val Ile Leu Ala Ile Leu Val Ala Phe  
 115 120 125  
 Leu Gly Ser Ile Leu Leu Ile Gln Gly Phe Phe Arg Asp Ile Trp Val  
 130 135 140  
 Phe Gln Phe Cys Leu Val Ile Ala Ser Cys Gln Tyr Ser Leu Leu Lys  
 145 150 155 160  
 Ser Val Gln Pro Asp Ser Ser Ser Pro Arg His Gly His Asn Arg Ile  
 165 170 175  
 Ile Ala Tyr Ser Arg Pro Val Tyr Phe Cys Ile Cys Cys Gly Leu Ile  
 180 185 190  
 Trp Leu Leu Asp Tyr Gly Ser Arg Asn Leu Thr Ala Thr Lys Phe Lys  
 195 200 205  
 Leu Tyr Gly Ile Thr Phe Thr Asn Pro Leu Val Phe Ile Ser Ala Arg  
 210 215 220  
 Asp Leu Val Ile Val Phe Thr Leu Cys Phe Pro Ile Val Phe Phe Ile  
 225 230 235 240  
 Gly Leu Leu Pro Gln Val Asn Thr Phe Val Met Tyr Leu Cys Glu Gln  
 245 250 255  
 Leu Asp Ile His Ile Phe Gly Gly Asn Ala Thr Thr Ser Leu Leu Ala  
 260 265 270  
 Ala Leu Tyr Ser Phe Ile Cys Ser Ile Val Ala Val Ala Leu Leu Tyr  
 275 280 285  
 Gly Leu Cys Tyr Gly Ala Leu Lys Asp Ser Trp Asp Gly Gln His Ile  
 290 295 300  
 Pro Val Leu Phe Ser Ile Phe Cys Gly Leu Leu Val Ala Val Ser Tyr  
 305 310 315 320  
 His Leu Ser Arg Gln Ser Ser Asp Pro Ser Val Leu Phe Ser Leu Val  
 325 330 335  
 Gln Ser Lys Ile Phe Pro Lys Thr Glu Glu Lys Asn Pro Glu Asp Pro  
 340 345 350  
 Leu Ser Glu Val Lys Asp Pro Leu Pro Glu Lys Leu Arg Asn Ser Val  
 355 360 365  
 Ser Glu Arg Leu Gln Ser Asp Leu Val Val Cys Ile Val Ile Gly Val  
 370 375 380  
 Leu Tyr Phe Ala Ile His Val Ser Thr Val Phe Thr Val Leu Gln Pro  
 385 390 395 400  
 Ala Leu Lys Tyr Val Leu Tyr Thr Leu Val Gly Phe Val Gly Phe Val  
 405 410 415  
 Thr His Tyr Val Leu Pro Gln Val Arg Lys Gln Leu Pro Trp His Cys  
 420 425 430  
 Phe Ser His Pro Leu Leu Lys Thr Leu Glu Tyr Asn Gln Tyr Glu Val  
 435 440 445  
 Arg Asn Ala Ala Thr Met Met Trp Phe Glu Lys Leu His Val Trp Leu  
 450 455 460  
 Leu Phe Val Glu Lys Asn Ile Ile Tyr Pro Leu Ile Val Leu Asn Glu  
 465 470 475 480  
 Leu Ser Ser Ser Ala Glu Thr Ile Ala Ser Pro Lys Lys Leu Asn Thr  
 485 490 495  
 Glu Leu Gly Ala Leu Met Ile Thr Val Ala Gly Leu Lys Leu Leu Arg  
 500 505 510  
 Ser Ser Phe Ser Ser Pro Thr Tyr Gln Tyr Val Thr Val Ile Phe Thr  
 515 520 525  
 Val Leu Phe Phe Lys Phe Asp Tyr Glu Ala Phe Ser Glu Thr Met Leu  
 530 535 540  
 Leu Asp Leu Phe Phe Met Ser Ile Leu Phe Asn Lys Leu Trp Glu Leu  
 545 550 555 560  
 Leu Tyr Lys Leu Gln Phe Val Tyr Thr Tyr Ile Ala Pro Trp Gln Ile  
 565 570 575  
 Thr Trp Gly Ser Ala Phe His Ala Phe Ala Gln Pro Phe Ala Val Pro  
 580 585 590

His Ser Ala Met Leu Phe Ile Gln Ala Ala Val Ser Ala Phe Phe Ser  
 595 600 605  
 Thr Pro Leu Asn Pro Phe Leu Gly Ser Ala Ile Phe Ile Thr Ser Tyr  
 610 615 620  
 Val Arg Pro Val Lys Phe Trp Glu Arg Asp Tyr Asn Thr Lys Arg Val  
 625 630 635 640  
 Asp His Ser Asn Thr Arg Leu Ala Ser Gln Leu Asp Arg Asn Pro Gly  
 645 650 655  
 Thr Tyr Cys Gln Gln Arg Glu Val Glu Ala Ile Thr Glu Gly Val Glu  
 660 665 670  
 Glu Asp Glu Gly Phe Cys Cys Cys Glu Pro Gly His Ile Pro His Met  
 675 680 685  
 Leu Ser Phe Asn Ala Ala Phe Ser Gln Arg Trp Leu Ala Trp Glu Val  
 690 695 700  
 Ile Val Thr Lys Tyr Ile Leu Glu Gly Tyr Ser Ile Thr Asp Asn Ser  
 705 710 715 720  
 Ala Ala Ser Met Leu Gln Val Phe Asp Leu Arg Lys Val Leu Thr Thr  
 725 730 735  
 Tyr Tyr Val Lys Gly Ile Ile Tyr Tyr Val Thr Thr Ser Ser Lys Leu  
 740 745 750  
 Glu Glu Trp Leu Ala Asn Glu Thr Met Gln Glu Gly Leu Arg Leu Cys  
 755 760 765  
 Ala Asp Arg Asn Tyr Val Asp Val Asp Pro Thr Phe Asn Pro Asn Ile  
 770 775 780  
 Asp Glu Asp Tyr Asp His Arg Leu Ala Gly Ile Ser Arg Glu Ser Phe  
 785 790 795 800  
 Cys Val Ile Tyr Leu Asn Trp Ile Glu Tyr Cys Ser Ser Arg Arg Ala  
 805 810 815  
 Lys Pro Val Asp Val Asp Lys Asp Ser Ser Leu Val Thr Leu Cys Tyr  
 820 825 830  
 Gly Leu Cys Val Leu Gly Arg Arg Ala Leu Gly Thr Ala Ser His His  
 835 840 845  
 Met Ser Ser Asn Leu Glu Ser Phe Leu Tyr Gly Leu His Ala Leu Phe  
 850 855 860  
 Lys Gly Asp Phe Arg Ile Ser Ser Ile Arg Asp Glu Trp Ile Phe Ala  
 865 870 875 880  
 Asp Met Glu Leu Leu Arg Lys Val Val Val Pro Gly Ile Arg Met Ser  
 885 890 895  
 Ile Lys Leu His Gln Asp His Phe Thr Ser Pro Asp Glu Tyr Asp Asp  
 900 905 910  
 Pro Thr Val Leu Tyr Glu Ala Ile Val Ser His Glu Lys Asn Leu Val  
 915 920 925  
 Ile Ala His Glu Gly Asp Pro Ala Trp Arg Ser Ala Val Leu Ala Asn  
 930 935 940  
 Ser Pro Ser Leu Leu Ala Leu Arg His Val Met Asp Asp Gly Thr Asn  
 945 950 955 960  
 Glu Tyr Lys Ile Ile Met Leu Asn Arg Arg Tyr Leu Ser Phe Arg Val  
 965 970 975  
 Ile Lys Val Asn Lys Glu Cys Val Arg Gly Leu Trp Ala Gly Gln Gln  
 980 985 990  
 Gln Glu Leu Val Phe Leu Arg Asn Arg Asn Pro Glu Arg Gly Ser Ile  
 995 1000 1005  
 Gln Asn Ala Lys Gln Ala Leu Arg Asn Met Ile Asn Ser Ser Cys Asp  
 1010 1015 1020  
 Gln Pro Ile Gly Tyr Pro Ile Phe Val Ser Pro Leu Thr Thr Ser Tyr  
 1025 1030 1035 1040  
 Ser Asp Ser His Glu Gln Leu Lys Asp Ile Leu Gly Gly Pro Ile Ser  
 1045 1050 1055  
 Leu Gly Asn Ile Arg Asn Phe Ile Val Ser Thr Trp His Arg Leu Arg  
 1060 1065 1070  
 Lys Gly Cys Gly Ala Gly Cys Asn Ser Gly Gly Asn Ile Glu Asp Ser  
 1075 1080 1085  
 Asp Thr Gly Gly Gly Thr Ser Cys Thr Gly Asn Asn Ala Thr Thr Ala  
 1090 1095 1100

Asn Asn Pro His Ser Asn Val Thr Gln Gly Ser Ile Gly Asn Pro Gly  
 1105 1110 1115 1120  
 Gln Gly Ser Gly Thr Gly Leu His Pro Pro Val Thr Ser Tyr Pro Pro  
 1125 1130 1135  
 Thr Leu Gly Thr Ser His Ser Ser His Ser Val Gln Ser Gly Leu Val  
 1140 1145 1150  
 Arg Gln Ser Pro Ala Arg Ala Ser Val Ala Ser Gln Ser Ser Tyr Cys  
 1155 1160 1165  
 Tyr Ser Ser Arg His Ser Ser Leu Arg Met Ser Thr Thr Gly Phe Val  
 1170 1175 1180  
 Pro Cys Arg Arg Ser Ser Thr Ser Gln Ile Ser Leu Arg Asn Leu Pro  
 1185 1190 1195 1200  
 Ser Ser Ile Gln Ser Arg Leu Ser Met Val Asn Gln Met Glu Pro Ser  
 1205 1210 1215  
 Gly Gln Ser Gly Leu Ala Cys Val Gln His Gly Leu Pro Ser Ser Ser  
 1220 1225 1230  
 Ser Ser Ser Gln Ser Ile Pro Ala Cys Lys His His Thr Leu Val Gly  
 1235 1240 1245  
 Phe Leu Ala Thr Glu Gly Gly Gln Ser Ser Ala Thr Asp Ala Gln Pro  
 1250 1255 1260  
 Gly Asn Thr Leu Ser Pro Ala Asn Asn Ser His Ser Arg Lys Ala Glu  
 1265 1270 1275 1280  
 Val Ile Tyr Arg Val Gln Ile Val Asp Pro Ser Gln Ile Leu Glu Gly  
 1285 1290 1295  
 Ile Asn Leu Ser Lys Arg Lys Glu Leu Gln Trp Pro Asp Glu Gly Ile  
 1300 1305 1310  
 Arg Leu Lys Ala Gly Arg Asn Ser Trp Lys Asp Trp Ser Pro Gln Glu  
 1315 1320 1325  
 Gly Met Glu Gly His Val Ile His Arg Trp Val Pro Cys Ser Arg Asp  
 1330 1335 1340  
 Pro Gly Thr Arg Ser His Ile Asp Lys Ala Val Leu Leu Val Gln Ile  
 1345 1350 1355 1360  
 Asp Asp Lys Tyr Val Thr Val Ile Glu Thr Gly Val Leu Glu Leu Gly  
 1365 1370 1375  
 Ala Glu Val \*  
 1379

<210> 1218  
 <211> 152  
 <212> PRT  
 <213> Homo sapiens

<400> 1218  
 Met Arg Phe Leu Ala Ala Thr Phe Leu Leu Leu Ala Leu Ser Thr Ala  
 1 5 10 15  
 Ala Gln Ala Glu Pro Val Gln Phe Lys Asp Cys Gly Ser Val Asp Gly  
 20 25 30  
 Val Ile Lys Glu Val Asn Val Ser Pro Cys Pro Thr Gln Pro Cys Gln  
 35 40 45  
 Leu Ser Lys Gly Gln Ser Tyr Ser Val Asn Val Thr Phe Thr Ser Asn  
 50 55 60  
 Ile Gln Ser Lys Ser Ser Lys Ala Val Val His Gly Ile Leu Met Gly  
 65 70 75 80  
 Val Pro Val Pro Phe Pro Ile Pro Glu Pro Asp Gly Cys Lys Ser Gly  
 85 90 95  
 Ile Asn Cys Pro Ile Gln Lys Asp Lys Thr Tyr Ser Tyr Leu Asn Lys  
 100 105 110  
 Leu Pro Val Lys Ser Glu Tyr Pro Ser Ile Lys Leu Val Val Glu Trp  
 115 120 125  
 Gln Leu Gln Asp Asp Lys Asn Gln Ser Leu Phe Cys Trp Glu Ile Pro  
 130 135 140

Val Gln Ile Val Ser His Leu \*  
145 150 151

<210> 1219  
<211> 116  
<212> PRT  
<213> Homo sapiens

<400> 1219  
Met Arg Phe Leu Ala Ala Thr Phe Leu Leu Leu Ala Leu Ser Thr Ala  
1 5 10 15  
Ala Gln Ala Glu Pro Val Gln Phe Lys Asp Cys Asp Ile Gln Ser Lys  
20 25 30  
Ser Ser Lys Ala Val Val His Gly Ile Leu Met Gly Val Pro Val Pro  
35 40 45  
Phe Pro Ile Pro Glu Pro Asp Gly Cys Lys Ser Gly Ile Asn Cys Pro  
50 55 60  
Ile Gln Lys Asp Lys Thr Tyr Ser Tyr Leu Asn Lys Leu Pro Val Lys  
65 70 75 80  
Ser Glu Tyr Pro Ser Ile Lys Leu Val Val Glu Trp Gln Leu Gln Asp  
85 90 95  
Asp Lys Asn Gln Ser Leu Phe Cys Trp Glu Ile Pro Val Gln Ile Val  
100 105 110  
Ser His Leu \*  
115

<210> 1220  
<211> 1179  
<212> PRT  
<213> Homo sapiens

<400> 1220  
Met Pro Val Arg Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp Pro  
1 5 10 15  
Arg Val Arg Pro Arg Val Arg Thr Lys Leu Ile Leu Leu Val Asn Asp  
20 25 30  
Lys Lys Arg Tyr Glu Arg Val Gly Gly Gly Pro Lys Arg Leu Gly Arg  
35 40 45  
Asp Val Glu Met Glu Glu Met Ile Glu Gln Leu Gln Glu Lys Val His  
50 55 60  
Glu Leu Glu Lys Gln Asn Glu Thr Leu Lys Asn Arg Leu Ile Ser Ala  
65 70 75 80  
Lys Gln Gln Leu Gln Thr Gln Gly Tyr Arg Gln Thr Pro Tyr Asn Asn  
85 90 95  
Val Gln Ser Arg Ile Asn Thr Gly Arg Arg Lys Ala Asn Glu Asn Ala  
100 105 110  
Gly Leu Gln Glu Cys Pro Arg Lys Gly Ile Lys Phe Gln Asp Ala Asp  
115 120 125  
Val Ala Glu Thr Pro His Pro Met Phe Thr Lys Tyr Gly Asn Ser Leu  
130 135 140  
Leu Glu Glu Ala Arg Gly Glu Ile Arg Asn Leu Glu Asn Val Ile Gln  
145 150 155 160  
Ser Gln Arg Gly Gln Ile Glu Glu Leu Glu His Leu Ala Glu Ile Leu  
165 170 175  
Lys Thr Gln Leu Arg Arg Lys Glu Asn Glu Ile Glu Leu Ser Leu Leu  
180 185 190  
Gln Leu Arg Glu Gln Gln Ala Thr Asp Gln Arg Ser Asn Ile Arg Asp  
195 200 205

Asn	Val	Glu	Met	Ile	Lys	Leu	His	Lys	Gln	Leu	Val	Glu	Lys	Ser	Asn	210	215	220
Ala	Leu	Ser	Ala	Met	Glu	Gly	Lys	Phe	Ile	Gln	Leu	Gln	Glu	Lys	Gln	225	230	235
Arg	Thr	Leu	Lys	Ile	Ser	His	Asp	Ala	Leu	Met	Ala	Asn	Gly	Asp	Glu	245	250	255
Leu	Asn	Met	Gln	Leu	Lys	Glu	Gln	Arg	Leu	Lys	Cys	Cys	Ser	Leu	Glu	260	265	270
Lys	Gln	Leu	His	Ser	Met	Lys	Phe	Ser	Glu	Arg	Arg	Ile	Glu	Glu	Leu	275	280	285
Gln	Asp	Arg	Ile	Asn	Asp	Leu	Glu	Lys	Glu	Arg	Glu	Leu	Leu	Lys	Glu	290	295	300
Asn	Tyr	Asp	Lys	Leu	Tyr	Asp	Ser	Ala	Phe	Ser	Ala	Ala	His	Glu	Glu	305	310	315
Gln	Trp	Lys	Leu	Lys	Glu	Gln	Gln	Leu	Lys	Val	Gln	Ile	Ala	Gln	Leu	325	330	335
Glu	Thr	Ala	Leu	Lys	Ser	Asp	Leu	Thr	Asp	Lys	Thr	Glu	Ile	Leu	Asp	340	345	350
Arg	Leu	Lys	Thr	Glu	Arg	Asp	Gln	Asn	Glu	Lys	Leu	Val	Gln	Glu	Asn	355	360	365
Arg	Glu	Leu	Gln	Leu	Gln	Tyr	Leu	Glu	Gln	Lys	Gln	Gln	Leu	Asp	Glu	370	375	380
Leu	Lys	Lys	Arg	Ile	Lys	Leu	Tyr	Asn	Gln	Glu	Asn	Asp	Ile	Asn	Ala	385	390	395
Asp	Glu	Leu	Ser	Glu	Ala	Leu	Leu	Leu	Ile	Lys	Ala	Gln	Lys	Glu	Gln	405	410	415
Lys	Asn	Gly	Asp	Leu	Ser	Phe	Leu	Val	Lys	Val	Asp	Ser	Glu	Ile	Asn	420	425	430
Lys	Asp	Leu	Glu	Arg	Ser	Met	Arg	Glu	Leu	Gln	Ala	Thr	His	Ala	Glu	435	440	445
Thr	Val	Gln	Glu	Leu	Glu	Lys	Thr	Arg	Asn	Met	Leu	Ile	Met	Gln	His	450	455	460
Lys	Ile	Asn	Lys	Asp	Tyr	Gln	Met	Glu	Val	Glu	Ala	Val	Thr	Arg	Lys	465	470	475
Met	Glu	Asn	Leu	Gln	Asp	Tyr	Glu	Leu	Lys	Val	Glu	Gln	Tyr	Val		485	490	495
His	Leu	Leu	Asp	Ile	Arg	Ala	Ala	Arg	Ile	His	Lys	Leu	Glu	Ala	Gln	500	505	510
Leu	Lys	Asp	Ile	Ala	Tyr	Gly	Thr	Lys	Gln	Tyr	Lys	Phe	Lys	Pro	Glu	515	520	525
Ile	Met	Pro	Asp	Asp	Ser	Val	Asp	Glu	Phe	Asp	Glu	Thr	Ile	His	Leu	530	535	540
Glu	Arg	Gly	Glu	Asn	Leu	Phe	Glu	Ile	His	Ile	Asn	Lys	Val	Thr	Phe	545	550	555
Ser	Ser	Glu	Val	Leu	Gln	Ala	Ser	Gly	Asp	Lys	Glu	Pro	Val	Thr	Phe	565	570	575
Cys	Thr	Tyr	Ala	Phe	Tyr	Asp	Phe	Glu	Leu	Gln	Thr	Thr	Pro	Val	Val	580	585	590
Arg	Gly	Leu	His	Pro	Glu	Tyr	Asn	Phe	Thr	Ser	Gln	Tyr	Leu	Val	His	595	600	605
Val	Asn	Asp	Leu	Phe	Leu	Gln	Tyr	Ile	Gln	Lys	Asn	Thr	Ile	Thr	Leu	610	615	620
Glu	Val	His	Gln	Ala	Tyr	Ser	Thr	Glu	Tyr	Glu	Thr	Ile	Ala	Ala	Cys	625	630	635
Gln	Leu	Lys	Phe	His	Glu	Ile	Leu	Glu	Lys	Ser	Gly	Arg	Ile	Phe	Cys	645	650	655
Thr	Ala	Ser	Leu	Ile	Gly	Thr	Lys	Gly	Asp	Ile	Pro	Asn	Phe	Gly	Thr	660	665	670
Val	Glu	Tyr	Trp	Phe	Arg	Leu	Arg	Val	Pro	Met	Asp	Gln	Ala	Ile	Arg	675	680	685
Leu	Tyr	Arg	Glu	Arg	Ala	Lys	Ala	Leu	Gly	Tyr	Ile	Thr	Ser	Asn	Phe	690	695	700
Lys	Gly	Pro	Glu	His	Met	Gln	Ser	Leu	Ser	Gln	Gln	Ala	Pro	Lys	Thr	705	710	715

Ala Gln Leu Ser Ser Thr Asp Ser Thr Asp Gly Asn Leu Asn Glu Leu  
 725 730 735  
 His Ile Thr Ile Arg Cys Cys Asn His Leu Gln Ser Arg Ala Ser His  
 740 745 750  
 Leu Gln Pro His Pro Tyr Val Val Tyr Lys Phe Phe Asp Phe Ala Asp  
 755 760 765  
 His Asp Thr Ala Ile Ile Pro Ser Ser Asn Asp Pro Gln Phe Asp Asp  
 770 775 780  
 His Met Tyr Phe Pro Val Pro Met Asn Met Asp Leu Asp Arg Tyr Leu  
 785 790 795 800  
 Lys Ser Glu Ser Leu Ser Phe Tyr Val Phe Asp Asp Ser Asp Thr Gln  
 805 810 815  
 Glu Asn Ile Tyr Ile Gly Lys Val Asn Val Pro Leu Ile Ser Leu Ala  
 820 825 830  
 His Asp Arg Cys Ile Ser Gly Ile Phe Glu Leu Thr Asp His Gln Lys  
 835 840 845  
 His Pro Ala Gly Thr Ile His Val Ile Leu Lys Trp Lys Phe Ala Tyr  
 850 855 860  
 Leu Pro Pro Ser Gly Ser Ile Thr Thr Glu Asp Leu Gly Asn Phe Ile  
 865 870 875 880  
 Arg Ser Glu Glu Pro Glu Val Val Gln Arg Leu Pro Pro Ala Ser Ser  
 885 890 895  
 Val Ser Thr Leu Val Leu Ala Pro Arg Pro Lys Pro Arg Gln Arg Leu  
 900 905 910  
 Thr Pro Val Asp Lys Lys Val Ser Phe Val Asp Ile Met Pro His Gln  
 915 920 925  
 Ser Asp Val Ser Gln Glu Gly Ser Val Asp Glu Val Lys Glu Asn Thr  
 930 935 940  
 Glu Lys Met Gln Gln Gly Lys Asp Asp Val Ser Leu Leu Ser Glu Gly  
 945 950 955 960  
 Gln Leu Ala Glu Gln Ser Leu Ala Ser Ser Glu Asp Glu Thr Glu Ile  
 965 970 975  
 Thr Glu Asp Leu Glu Pro Glu Val Glu Glu Asp Met Ser Ala Ser Asp  
 980 985 990  
 Ser Asp Asp Cys Ile Ile Pro Gly Pro Ile Ser Lys Asn Ile Lys Gln  
 995 1000 1005  
 Pro Ser Glu Lys Ile Arg Ile Glu Ile Ile Ala Leu Ser Leu Asn Asp  
 1010 1015 1020  
 Ser Gln Val Thr Met Asp Asp Thr Ile Gln Arg Leu Phe Val Glu Cys  
 1025 1030 1035 1040  
 Arg Phe Tyr Ser Leu Pro Ala Glu Glu Thr Pro Val Ser Leu Pro Lys  
 1045 1050 1055  
 Pro Lys Ser Gly Gln Trp Val Tyr Tyr Asn Tyr Ser Asn Val Ile Tyr  
 1060 1065 1070  
 Val Asp Lys Glu Asn Asn Lys Ala Lys Arg Asp Ile Leu Lys Ala Ile  
 1075 1080 1085  
 Leu Gln Lys Gln Glu Met Pro Asn Arg Ser Leu Arg Phe Thr Val Val  
 1090 1095 1100  
 Ser Asp Pro Pro Glu Asp Glu Gln Asp Leu Glu Cys Glu Asp Ile Gly  
 1105 1110 1115 1120  
 Val Ala His Val Asp Leu Ala Asp Met Phe Gln Glu Gly Arg Asp Leu  
 1125 1130 1135  
 Ile Glu Gln Asn Ile Asp Val Phe Asp Ala Arg Ala Asp Gly Glu Gly  
 1140 1145 1150  
 Ile Gly Lys Leu Arg Val Thr Val Glu Ala Leu His Ala Leu Gln Ser  
 1155 1160 1165  
 Val Tyr Lys Gln Tyr Arg Asp Asp Leu Glu Ala  
 1170 1175 1179

&lt;210&gt; 1221

&lt;211&gt; 234

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1221

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Met Lys Gly Ser Gly Trp His Leu Arg Ser Gly Met Val Gly Thr Leu
 1      5      10      15
Ile Thr Thr Ile Leu Pro His Trp Arg Thr Ala His Val Gly Thr
      20      25      30
Asn Ile Leu Thr Ala Val Ser Tyr Leu Lys Gly Leu Trp Met Glu Cys
      35      40      45
Val Trp His Ser Thr Gly Ile Tyr Gln Cys Gln Ile Tyr Arg Ser Leu
      50      55      60
Leu Ala Leu Pro Gln Asp Leu Gln Ala Ala Arg Ala Leu Met Val Ile
      65      70      75      80
Ser Cys Leu Leu Ser Gly Ile Ala Cys Ala Cys Ala Val Ile Gly Met
      85      90      95
Lys Cys Thr Arg Cys Ala Lys Gly Thr Pro Ala Lys Thr Thr Phe Ala
      100      105      110
Ile Leu Gly Gly Thr Leu Phe Ile Leu Ala Gly Leu Leu Cys Met Val
      115      120      125
Ala Val Ser Trp Thr Thr Asn Asp Val Val Gln Asn Phe Tyr Asn Pro
      130      135      140
Leu Leu Pro Ser Gly Met Lys Phe Glu Ile Gly Gln Ala Leu Tyr Leu
      145      150      155      160
Gly Phe Ile Ser Ser Ser Leu Ser Leu Ile Gly Gly Thr Leu Leu Cys
      165      170      175
Leu Ser Cys Gln Asp Glu Ala Pro Tyr Arg Pro Tyr Gln Ala Pro Pro
      180      185      190
Arg Ala Thr Thr Thr Thr Ala Asn Thr Ala Pro Ala Tyr Gln Pro Pro
      195      200      205
Ala Ala Tyr Lys Asp Asn Arg Ala Pro Ser Val Thr Ser Ala Thr His
      210      215      220
Ser Gly Tyr Arg Leu Asn Asp Tyr Val *
      225      230      233

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&lt;210&gt; 1222

&lt;211&gt; 255

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1222

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Met Ala Trp Gln Gly Leu Val Leu Ala Ala Cys Leu Leu Met Phe Pro
 1      5      10      15
Ser Thr Thr Ala Asp Cys Leu Ser Arg Cys Ser Leu Cys Ala Val Lys
      20      25      30
Thr Gln Asp Gly Pro Lys Pro Ile Asn Pro Leu Ile Cys Ser Leu Gln
      35      40      45
Cys Gln Ala Ala Leu Leu Pro Ser Glu Glu Trp Glu Arg Cys Gln Ser
      50      55      60
Phe Leu Ser Phe Phe Thr Pro Ser Thr Leu Gly Leu Asn Asp Lys Glu
      65      70      75      80
Asp Leu Gly Ser Lys Ser Val Gly Glu Gly Pro Tyr Ser Glu Leu Ala
      85      90      95
Lys Leu Ser Gly Ser Phe Leu Lys Glu Leu Glu Lys Ser Lys Phe Leu
      100      105      110
Pro Ser Ile Ser Thr Lys Glu Asn Thr Leu Ser Lys Ser Leu Glu Glu
      115      120      125
Lys Leu Arg Gly Leu Ser Asp Gly Phe Arg Glu Gly Ala Glu Ser Glu
      130      135      140
Leu Met Arg Asp Ala Gln Leu Asn Asp Gly Ala Met Glu Thr Gly Thr
      145      150      155      160

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Leu Tyr Leu Ala Glu Glu Asp Pro Lys Glu Gln Val Lys Arg Tyr Gly  
                   165                  170                  175  
 Gly Phe Leu Arg Lys Tyr Pro Lys Arg Ser Ser Glu Val Ala Gly Glu  
                   180                  185                  190  
 Gly Asp Gly Asp Ser Met Gly His Glu Asp Leu Tyr Lys Arg Tyr Gly  
                   195                  200                  205  
 Gly Phe Leu Arg Arg Ile Arg Pro Lys Leu Lys Trp Asp Asn Gln Lys  
                   210                  215                  220  
 Arg Tyr Gly Gly Phe Leu Arg Arg Gln Phe Lys Val Val Thr Arg Ser  
                   225                  230                  235                  240  
 Gln Glu Asp Pro Asn Ala Tyr Ser Gly Glu Leu Phe Asp Ala \*  
                   245                  250                  254

<210> 1223  
 <211> 154  
 <212> PRT  
 <213> Homo sapiens

<400> 1223  
 Met Ala Asp Glu Ile Asp Phe Thr Thr Gly Asp Ala Gly Ala Ser Ser  
   1                  5                  10                  15  
 Thr Tyr Pro Met Gln Cys Ser Ala Leu Arg Lys Asn Gly Phe Val Val  
                   20                  25                  30  
 Leu Lys Gly Arg Pro Cys Lys Ile Val Glu Met Ser Thr Ser Lys Thr  
                   35                  40                  45  
 Gly Lys His Gly His Ala Lys Val His Leu Val Gly Ile Asp Ile Phe  
                   50                  55                  60  
 Thr Gly Lys Lys Tyr Glu Asp Ile Cys Pro Ser Thr His Asn Met Asp  
                   65                  70                  75                  80  
 Val Pro Asn Ile Lys Arg Asn Asp Tyr Gln Leu Ile Cys Ile Gln Asp  
                   85                  90                  95  
 Gly Tyr Leu Ser Leu Leu Thr Glu Thr Gly Glu Val Arg Glu Asp Leu  
                   100                  105                  110  
 Lys Leu Pro Glu Gly Glu Leu Gly Lys Glu Ile Glu Gly Lys Tyr Asn  
                   115                  120                  125  
 Ala Gly Glu Asp Val Gln Val Ser Val Met Cys Ala Met Ser Glu Glu  
                   130                  135                  140  
 Tyr Ala Val Ala Ile Lys Pro Cys Lys \*  
                   145                  150                  153

<210> 1224  
 <211> 513  
 <212> PRT  
 <213> Homo sapiens

<400> 1224  
 Met Gln Ser Cys Glu Ser Ser Gly Asp Ser Ala Asp Asp Pro Leu Ser  
   1                  5                  10                  15  
 Arg Gly Leu Arg Arg Arg Gly Gln Pro Arg Val Val Val Ile Gly Ala  
                   20                  25                  30  
 Gly Leu Ala Gly Leu Ala Ala Ala Lys Ala Leu Leu Glu Gln Gly Phe  
                   35                  40                  45  
 Thr Asp Val Thr Val Leu Glu Ala Ser Ser His Ile Gly Gly Arg Val  
                   50                  55                  60  
 Gln Ser Val Lys Leu Gly His Ala Thr Phe Glu Leu Gly Ala Thr Trp  
                   65                  70                  75                  80  
 Ile His Gly Ser His Gly Asn Pro Ile Tyr His Leu Ala Glu Ala Asn  
                   85                  90                  95



Gly Leu Leu Glu Glu Thr Thr Asp Gly Glu Arg Ser Val Gly Arg Ile  
                   100                  105                  110  
 Ser Leu Tyr Ser Lys Asn Gly Val Ala Cys Tyr Leu Thr Asn His Gly  
                   115                  120                  125  
 Arg Arg Ile Pro Lys Asp Val Val Glu Glu Phe Ser Asp Leu Tyr Asn  
                   130                  135                  140  
 Glu Val Tyr Asn Leu Thr Gln Glu Phe Phe Arg His Asp Lys Pro Val  
                   145                  150                  155                  160  
 Asn Ala Glu Ser Gln Asn Ser Val Gly Val Phe Thr Arg Glu Glu Val  
                   165                  170                  175  
 Arg Asn Arg Ile Arg Asn Asp Pro Asp Asp Pro Glu Ala Thr Lys Arg  
                   180                  185                  190  
 Leu Lys Leu Ala Met Ile Gln Gln Tyr Leu Lys Val Glu Ser Cys Glu  
                   195                  200                  205  
 Ser Ser Ser His Ser Met Asp Glu Val Ser Leu Ser Ala Phe Gly Glu  
                   210                  215                  220  
 Trp Thr Glu Ile Pro Gly Ala His His Ile Ile Pro Ser Gly Phe Met  
                   225                  230                  235                  240  
 Arg Val Val Glu Leu Leu Ala Glu Gly Ile Pro Ala His Val Ile Gln  
                   245                  250                  255  
 Leu Gly Lys Pro Val Arg Cys Ile His Trp Asp Gln Ala Ser Ala Arg  
                   260                  265                  270  
 Pro Arg Gly Pro Glu Ile Glu Pro Arg Gly Glu Gly Asp His Asn His  
                   275                  280                  285  
 Asp Thr Gly Glu Gly Gly Gln Gly Gly Glu Glu Pro Arg Gly Gly Arg  
                   290                  295                  300  
 Trp Asp Glu Asp Glu Gln Trp Ser Val Val Val Glu Cys Glu Asp Cys  
                   305                  310                  315                  320  
 Glu Leu Ile Pro Ala Asp His Val Ile Val Thr Val Ser Leu Gly Val  
                   325                  330                  335  
 Leu Lys Arg Gln Tyr Thr Ser Phe Phe Arg Pro Gly Leu Pro Thr Glu  
                   340                  345                  350  
 Lys Val Ala Ala Ile His Arg Leu Gly Ile Gly Thr Thr Asp Lys Ile  
                   355                  360                  365  
 Phe Leu Glu Phe Glu Glu Pro Phe Trp Gly Pro Glu Cys Asn Ser Leu  
                   370                  375                  380  
 Gln Phe Val Trp Glu Asp Glu Ala Glu Ser His Thr Leu Thr Tyr Pro  
                   385                  390                  395                  400  
 Pro Glu Leu Trp Tyr Arg Lys Ile Cys Gly Phe Asp Val Leu Tyr Pro  
                   405                  410                  415  
 Pro Glu Arg Tyr Gly His Val Leu Ser Gly Trp Ile Cys Gly Glu Glu  
                   420                  425                  430  
 Ala Leu Val Met Glu Lys Cys Asp Asp Glu Ala Val Ala Glu Ile Cys  
                   435                  440                  445  
 Thr Glu Met Leu Arg Gln Phe Thr Gly Asn Pro Asn Ile Pro Lys Pro  
                   450                  455                  460  
 Arg Arg Ile Leu Arg Ser Ala Trp Gly Ser Asn Pro Tyr Phe Arg Gly  
                   465                  470                  475                  480  
 Ser Tyr Ser Tyr Thr Gln Val Gly Leu Gln Arg Gly Gly Met Trp Arg  
                   485                  490                  495  
 Ser Trp Ala Lys Pro Leu Pro Tyr Thr Glu Ser Ser Lys Thr Ala Thr  
                   500                  505                  510  
 Lys  
 513

&lt;210&gt; 1225

&lt;211&gt; 721

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1225

Met	Thr	Glu	Asn	Pro	Ala	Pro	Asp	Trp	Leu	Ser	Asp	Arg	Ala	Trp	Arg
1				5					10					15	
Asp	Ile	Leu	Ala	Leu	Ser	Asn	Leu	Pro	Thr	Phe	Ser	Ser	Phe	Ser	Ser
		20						25					30		
Asp	Phe	Val	Lys	His	Leu	Ser	Glu	Phe	Arg	Val	Ile	Phe	Asp	Ser	Leu
	35						40					45			
Glu	Pro	His	Arg	Pro	Leu	Ser	Pro	Ala	Val	Arg	Leu	Ala	Glu	Ser	Leu
	50					55					60				
Gly	Pro	Pro	Thr	Ser	Phe	Gln	Gln	Ala	Gly	Ser	Gln	Gly	Gly	Val	Gly
	65				70					75					80
His	Cys	Cys	Arg	Glu	Pro	Leu	Pro	Gly	Ile	Trp	Asp	Gln	Tyr	Leu	Asp
			85					90						95	
Gln	Phe	Gln	Lys	Leu	Leu	Val	Leu	Arg	Cys	Leu	Arg	Gly	Asp	Lys	Thr
			100					105					110		
Ala	Asn	Leu	Ser	Val	Val	Phe	Lys	Asp	Ser	Asn	Ser	Thr	Thr	Pro	Leu
	115						120					125			
Ile	Phe	Val	Leu	Ser	Pro	Gly	Thr	Asp	Pro	Ala	Ala	Asp	Leu	Tyr	Lys
	130					135					140				
Phe	Ala	Glu	Glu	Met	Lys	Phe	Ser	Lys	Lys	Leu	Ser	Ala	Ile	Ser	Leu
	145				150					155					160
Gly	Gln	Gly	Gln	Gly	Pro	Arg	Ala	Glu	Ala	Met	Met	Arg	Ser	Ser	Ile
			165					170						175	
Glu	Arg	Gly	Lys	Trp	Val	Phe	Phe	Gln	Asn	Cys	His	Leu	Ala	Pro	Ser
			180					185					190		
Trp	Met	Pro	Ala	Leu	Glu	Arg	Leu	Ile	Glu	His	Ile	Asn	Pro	Asp	Lys
	195						200					205			
Val	His	Arg	Asp	Phe	Arg	Leu	Trp	Leu	Thr	Ser	Leu	Pro	Ser	Asn	Lys
	210					215					220				
Phe	Pro	Val	Ser	Ile	Leu	Gln	Asn	Gly	Ser	Lys	Met	Thr	Ile	Glu	Pro
	225				230					235					240
Pro	Arg	Gly	Val	Arg	Ala	Asn	Leu	Leu	Lys	Ser	Tyr	Ser	Ser	Leu	Gly
			245						250					255	
Glu	Asp	Phe	Leu	Asn	Ser	Cys	His	Lys	Val	Met	Glu	Phe	Lys	Ser	Leu
			260					265					270		
Leu	Leu	Ser	Leu	Cys	Leu	Phe	His	Gly	Asn	Ala	Leu	Glu	Arg	Arg	Lys
	275						280					285			
Phe	Gly	Pro	Leu	Gly	Phe	Asn	Ile	Pro	Tyr	Glu	Phe	Thr	Asp	Gly	Asp
	290					295					300				
Leu	Arg	Ile	Cys	Ile	Ser	Gln	Leu	Lys	Met	Phe	Leu	Asp	Glu	Tyr	Asp
	305				310					315					320
Asp	Ile	Pro	Tyr	Lys	Val	Leu	Lys	Tyr	Thr	Ala	Gly	Glu	Ile	Asn	Tyr
			325						330					335	
Gly	Gly	Arg	Val	Thr	Asp	Asp	Trp	Asp	Arg	Arg	Cys	Ile	Met	Asn	Ile
			340					345					350		
Leu	Glu	Asp	Phe	Tyr	Asn	Pro	Asp	Val	Leu	Ser	Pro	Glu	His	Ser	Tyr
	355					360						365			
Ser	Ala	Ser	Gly	Ile	Tyr	His	Gln	Ile	Pro	Pro	Thr	Tyr	Asp	Leu	His
	370					375					380				
Gly	Tyr	Leu	Ser	Tyr	Ile	Lys	Ser	Leu	Pro	Leu	Asn	Asp	Met	Pro	Glu
	385				390					395					400
Ile	Phe	Gly	Leu	His	Asp	Asn	Ala	Asn	Ile	Thr	Phe	Ala	Gln	Asn	Glu
			405						410					415	
Thr	Phe	Ala	Leu	Gly	Thr	Ile	Ile	Gln	Leu	Gln	Pro	Lys	Ser	Ser	
			420				425					430			
Ser	Ala	Gly	Ser	Gln	Gly	Arg	Glu	Glu	Ile	Val	Glu	Asp	Val	Thr	Gln
	435					440					445				
Asn	Ile	Leu	Leu	Lys	Val	Pro	Glu	Pro	Ile	Asn	Leu	Gln	Trp	Val	Met
	450					455					460				
Ala	Lys	Tyr	Pro	Val	Leu	Tyr	Glu	Glu	Ser	Met	Asn	Thr	Val	Leu	Val
	465				470					475					480
Gln	Glu	Val	Ile	Arg	Tyr	Asn	Arg	Leu	Leu	Gln	Val	Ile	Thr	Gln	Thr
			485						490					495	
Leu	Gln	Asp	Leu	Leu	Lys	Ala	Leu	Lys	Gly	Leu	Val	Val	Met	Ser	Ser
			500					505					510		

Gln Leu Glu Leu Met Ala Ala Ser Leu Tyr Asn Asn Thr Val Pro Glu  
 515 520 525  
 Leu Trp Ser Ala Lys Ala Tyr Pro Ser Leu Lys Pro Leu Ser Ser Trp  
 530 535 540  
 Val Met Asp Leu Leu Gln Arg Leu Asp Phe Leu Gln Ala Trp Ile Gln  
 545 550 555 560  
 Asp Gly Ile Pro Ala Val Phe Trp Ile Ser Gly Phe Phe Phe Pro Gln  
 565 570 575  
 Ala Phe Leu Thr Gly Thr Leu Gln Asn Phe Ala Arg Lys Phe Val Ile  
 580 585 590  
 Ser Ile Asp Thr Ile Ser Phe Asp Phe Lys Val Met Phe Glu Ala Pro  
 595 600 605  
 Ser Glu Leu Thr Gln Arg Pro Gln Val Gly Cys Tyr Ile His Gly Leu  
 610 615 620  
 Phe Leu Glu Gly Ala Arg Trp Asp Pro Glu Ala Phe Gln Leu Ala Glu  
 625 630 635 640  
 Ser Gln Pro Lys Glu Leu Tyr Thr Glu Met Ala Val Ile Trp Leu Leu  
 645 650 655  
 Pro Thr Pro Asn Arg Lys Ala Gln Asp Gln Asp Phe Tyr Leu Cys Pro  
 660 665 670  
 Ile Tyr Lys Thr Leu Thr Arg Ala Gly Thr Leu Ser Thr Thr Gly His  
 675 680 685  
 Ser Thr Asn Tyr Val Ile Ala Val Glu Ile Pro Thr His Gln Pro Gln  
 690 695 700  
 Arg His Trp Ile Lys Arg Gly Val Ala Leu Ile Cys Ala Leu Asp Tyr  
 705 710 715 720  
 \*

<210> 1226  
 <211> 263  
 <212> PRT  
 <213> Homo sapiens

<400> 1226  
 Met Tyr His Arg Ile Pro Ala His Gly Asn Ser Phe Asn Glu Glu Glu  
 1 5 10 15  
 Ser Glu Ser Ser Val Phe Asp Leu Asp Gly Gly Glu Glu Ser Pro Glu  
 20 25 30  
 Gly Ile Ser Lys Pro Val Val Pro Ala Asp Leu Ile Asn His Ala Asn  
 35 40 45  
 Arg Glu Gly Trp Thr Ala Ala His Ile Ala Ala Ser Lys Gly Phe Lys  
 50 55 60  
 Asn Cys Leu Glu Ile Leu Cys Arg His Gly Gly Leu Glu Pro Glu Arg  
 65 70 75 80  
 Arg Asp Lys Cys Asn Arg Thr Val His Asp Val Ala Thr Asp Asp Cys  
 85 90 95  
 Lys His Leu Leu Glu Asn Leu Asn Ala Leu Lys Ile Pro Leu Arg Ile  
 100 105 110  
 Ser Val Gly Glu Ile Glu Pro Ser Asn Tyr Gly Ser Asp Asp Leu Glu  
 115 120 125  
 Cys Glu Asn Thr Ile Cys Ala Leu Asn Ile Arg Lys Gln Thr Ser Trp  
 130 135 140  
 Asp Asp Phe Ser Lys Ala Val Ser Gln Ala Leu Thr Asn His Phe Gln  
 145 150 155 160  
 Ala Ile Ser Ser Asp Gly Trp Trp Ser Leu Glu Asp Val Thr Cys Asn  
 165 170 175  
 Asn Thr Thr Asp Ser Asn Ile Gly Leu Ser Ala Arg Ser Ile Arg Ser  
 180 185 190  
 Ile Thr Leu Gly Asn Val Pro Trp Ser Val Gly Gln Ser Phe Ala Gln  
 195 200 205

Ser Pro Trp Asp Phe Met Arg Lys Asn Lys Ala Glu His Ile Thr Val  
 210 215 220  
 Leu Leu Ser Gly Pro Gln Glu Gly Cys Leu Ser Ser Val Thr Tyr Ala  
 225 230 235 240  
 Ser Met Ile Pro Leu Gln Met Met Gln Asn Tyr Leu Arg Leu Met Gly  
 245 250 255  
 Lys Leu Asn Arg Glu Arg \*  
 260 262

&lt;210&gt; 1227

&lt;211&gt; 604

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1227

Met Ala Ala Ser Ala Gln Val Ser Val Thr Phe Glu Asp Val Ala Val  
 1 5 10 15  
 Thr Phe Thr Gln Glu Glu Trp Gly Gln Leu Asp Ala Ala Gln Arg Thr  
 20 25 30  
 Leu Tyr Gln Glu Val Met Leu Glu Thr Cys Gly Leu Leu Met Ser Leu  
 35 40 45  
 Gly Cys Pro Leu Phe Lys Pro Glu Leu Ile Tyr Gln Leu Asp His Arg  
 50 55 60  
 Gln Glu Leu Trp Met Ala Thr Lys Asp Leu Ser Gln Ser Ser Tyr Pro  
 65 70 75 80  
 Gly Asp Asn Thr Lys Pro Lys Thr Thr Glu Pro Thr Phe Ser His Leu  
 85 90 95  
 Ala Leu Pro Glu Glu Val Leu Leu Gln Glu Gln Leu Thr Gln Gly Ala  
 100 105 110  
 Ser Lys Asn Ser Gln Leu Gly Gln Ser Lys Asp Gln Asp Gly Pro Ser  
 115 120 125  
 Glu Met Gln Glu Val His Leu Lys Ile Gly Ile Gly Pro Gln Arg Gly  
 130 135 140  
 Lys Leu Leu Glu Lys Met Ser Ser Glu Arg Asp Gly Leu Gly Ser Asp  
 145 150 155 160  
 Asp Gly Val Cys Thr Lys Ile Thr Gln Lys Gln Val Ser Thr Glu Gly  
 165 170 175  
 Asp Leu Tyr Glu Cys Asp Ser His Gly Pro Val Thr Asp Ala Leu Ile  
 180 185 190  
 Arg Glu Glu Lys Asn Ser Tyr Lys Cys Glu Glu Cys Gly Lys Val Phe  
 195 200 205  
 Lys Lys Asn Ala Leu Leu Val Gln His Glu Arg Ile His Thr Gln Val  
 210 215 220  
 Lys Pro Tyr Glu Cys Thr Glu Cys Gly Lys Thr Phe Ser Lys Ser Thr  
 225 230 235 240  
 His Leu Leu Gln His Leu Ile Ile His Thr Gly Glu Lys Pro Tyr Lys  
 245 250 255  
 Cys Met Glu Cys Gly Lys Ala Phe Asn Arg Arg Ser His Leu Thr Arg  
 260 265 270  
 His Gln Arg Ile His Ser Gly Glu Lys Pro Tyr Lys Cys Ser Glu Cys  
 275 280 285  
 Gly Lys Ala Phe Thr His Arg Ser Thr Phe Val Leu His His Arg Ser  
 290 295 300  
 His Thr Gly Glu Lys Pro Phe Val Cys Lys Glu Cys Gly Lys Ala Phe  
 305 310 315 320  
 Arg Asp Arg Pro Gly Phe Ile Arg His Tyr Ile Ile His Thr Gly Glu  
 325 330 335  
 Lys Pro Tyr Glu Cys Ile Glu Cys Ile Glu Cys Gly Lys Ala Phe Asn  
 340 345 350  
 Arg Arg Ser Tyr Leu Thr Trp His Gln Gln Ile His Thr Gly Val Lys  
 355 360 365

Pro Phe Glu Cys Asn Glu Cys Gly Lys Ala Phe Cys Glu Ser Ala Asp  
 370 375 380  
 Leu Ile Gln His Tyr Ile Ile His Thr Gly Glu Lys Pro Tyr Lys Cys  
 385 390 395 400  
 Met Glu Cys Gly Lys Ala Phe Asn Arg Arg Ser His Leu Lys Gln His  
 405 410 415  
 Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Ser Glu Cys Gly  
 420 425 430  
 Lys Ala Phe Thr His Cys Ser Thr Phe Val Leu His Lys Arg Thr His  
 435 440 445  
 Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe Ser  
 450 455 460  
 Asp Arg Ala Asp Leu Ile Arg His Phe Ser Ile His Thr Gly Glu Lys  
 465 470 475 480  
 Pro Tyr Glu Cys Val Glu Cys Gly Lys Ala Phe Asn Arg Ser Ser His  
 485 490 495  
 Leu Thr Arg His Gln Gln Ile His Thr Gly Glu Lys Pro Tyr Glu Cys  
 500 505 510  
 Ile Gln Cys Gly Lys Ala Phe Cys Arg Ser Ala Asn Leu Ile Arg His  
 515 520 525  
 Ser Ile Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Ser Glu Cys Gly  
 530 535 540  
 Lys Ala Phe Asn Arg Gly Ser Ser Leu Thr His His Gln Arg Ile His  
 545 550 555 560  
 Thr Gly Arg Asn Pro Thr Ile Val Thr Asp Val Gly Arg Pro Phe Met  
 565 570 575  
 Thr Ala Gln Thr Ser Val Asn Ile Gln Glu Leu Leu Leu Gly Lys Glu  
 580 585 590  
 Phe Leu Asn Ile Thr Thr Glu Glu Asn Leu Trp \*  
 595 600 603

&lt;210&gt; 1228

&lt;211&gt; 359

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1228

Met Leu Ala Arg Ala Ala Arg Gly Thr Gly Ala Leu Leu Leu Arg Gly  
 1 5 10 15  
 Ser Leu Leu Ala Ser Gly Arg Ala Pro Arg Arg Ala Ser Ser Gly Leu  
 20 25 30  
 Pro Arg Asn Thr Val Val Leu Phe Val Pro Gln Gln Glu Ala Trp Val  
 35 40 45  
 Val Glu Arg Met Gly Arg Phe His Arg Ile Leu Glu Pro Gly Leu Asn  
 50 55 60  
 Ile Leu Ile Pro Val Leu Asp Arg Ile Arg Tyr Val Gln Ser Leu Lys  
 65 70 75 80  
 Glu Ile Val Ile Asn Val Pro Glu Gln Ser Ala Val Thr Leu Asp Asn  
 85 90 95  
 Val Thr Leu Gln Ile Asp Gly Val Leu Tyr Leu Arg Ile Met Asp Pro  
 100 105 110  
 Tyr Lys Ala Ser Tyr Gly Val Glu Asp Pro Glu Tyr Ala Val Thr Gln  
 115 120 125  
 Leu Ala Gln Thr Thr Met Arg Ser Glu Leu Gly Lys Leu Ser Leu Asp  
 130 135 140  
 Lys Val Phe Arg Glu Arg Glu Ser Leu Asn Ala Ser Ile Val Asp Ala  
 145 150 155 160  
 Ile Asn Gln Ala Ala Asp Cys Trp Gly Ile Arg Cys Leu Arg Tyr Glu  
 165 170 175  
 Ile Lys Asp Ile His Val Pro Pro Arg Val Lys Glu Ser Met Gln Met  
 180 185 190

Gln Val Glu Ala Glu Arg Arg Lys Arg Ala Thr Val Leu Glu Ser Glu  
           195                          200                          205  
 Gly Thr Arg Glu Ser Ala Ile Asn Val Ala Glu Gly Lys Lys Gln Ala  
           210                          215                          220  
 Gln Ile Leu Ala Ser Glu Ala Glu Lys Ala Glu Gln Ile Asn Gln Ala  
           225                          230                          235                          240  
 Ala Gly Glu Ala Ser Ala Val Leu Ala Lys Ala Lys Ala Lys Ala Glu  
                                   245                          250                          255  
 Ala Ile Arg Ile Leu Ala Ala Ala Leu Thr Gln His Asn Gly Asp Ala  
                                   260                          265                          270  
 Ala Ala Ser Leu Thr Val Ala Glu Gln Tyr Val Ser Ala Phe Ser Lys  
                                   275                          280                          285  
 Leu Ala Lys Asp Ser Asn Thr Ile Leu Leu Pro Ser Asn Pro Gly Asp  
           290                          295                          300  
 Val Thr Ser Met Val Ala Gln Ala Met Gly Val Tyr Gly Ala Leu Thr  
           305                          310                          315                          320  
 Lys Ala Pro Val Pro Val Pro Gly Thr Pro Asp Ser Leu Ser Ser Gly  
                                   325                          330                          335  
 Ser Ser Arg Asp Val Gln Gly Thr Asp Ala Ser Leu Asp Glu Glu Leu  
                                   340                          345                          350  
 Asp Arg Val Lys Met Ser \*  
                                   355                          358

&lt;210&gt; 1229

&lt;211&gt; 1130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1229

Met His Gln Met Ala Ser Gly Val Gly Ser Met Lys Cys Ser Leu Arg  
   1                          5                          10                          15  
 Lys Met Trp Arg Pro Gly Glu Lys Lys Glu Pro Gln Gly Val Val Tyr  
           20                          25                          30  
 Glu Asp Val Pro Asp Asp Thr Glu Asp Phe Lys Glu Ser Leu Lys Val  
           35                          40                          45  
 Val Phe Glu Gly Ser Ala Tyr Gly Leu Gln Asn Phe Asn Lys Gln Lys  
           50                          55                          60  
 Lys Leu Lys Thr Cys Asp Asp Met Asp Thr Phe Phe Leu His Tyr Ala  
           65                          70                          75                          80  
 Ala Ala Glu Gly Gln Ile Glu Leu Met Glu Lys Ile Thr Arg Asp Ser  
                                   85                          90                          95  
 Ser Leu Glu Val Leu His Glu Met Asp Asp Tyr Gly Asn Thr Pro Leu  
           100                          105                          110  
 His Cys Ala Val Glu Lys Asn Gln Ile Glu Ser Val Lys Phe Leu Leu  
           115                          120                          125  
 Ser Arg Gly Ala Asn Pro Asn Leu Arg Asn Phe Asn Met Met Ala Pro  
           130                          135                          140  
 Leu His Ile Ala Val Gln Gly Met Asn Asn Glu Val Met Lys Val Leu  
           145                          150                          155                          160  
 Leu Glu His Arg Thr Ile Asp Val Asn Leu Glu Gly Glu Asn Gly Asn  
                                   165                          170                          175  
 Thr Ala Val Ile Ile Ala Cys Thr Thr Asn Asn Ser Glu Ala Leu Gln  
                                   180                          185                          190  
 Ile Leu Leu Asn Lys Gly Ala Lys Pro Cys Lys Ser Asn Lys Trp Gly  
           195                          200                          205  
 Cys Phe Pro Ile His Gln Ala Ala Phe Ser Gly Ser Lys Glu Cys Met  
           210                          215                          220  
 Glu Ile Ile Leu Arg Phe Gly Glu Glu His Gly Tyr Ser Arg Gln Leu  
           225                          230                          235                          240  
 His Ile Asn Phe Met Asn Asn Gly Lys Ala Thr Pro Leu His Leu Ala  
                                   245                          250                          255

Val	Gln	Asn	Gly	Asp	Leu	Glu	Met	Ile	Lys	Met	Cys	Leu	Asp	Asn	Gly	260	265	270
Ala	Gln	Ile	Asp	Pro	Val	Glu	Lys	Gly	Arg	Cys	Thr	Ala	Ile	His	Phe	275	280	285
Ala	Ala	Thr	Gln	Gly	Ala	Thr	Glu	Ile	Val	Lys	Leu	Met	Ile	Ser	Ser	290	295	300
Tyr	Ser	Gly	Ser	Val	Asp	Ile	Val	Asn	Thr	Thr	Asp	Gly	Cys	His	Glu	305	310	315
Thr	Met	Leu	His	Arg	Ala	Ser	Leu	Phe	Asp	His	His	Glu	Leu	Ala	Asp	325	330	335
Tyr	Leu	Ile	Ser	Val	Gly	Ala	Asp	Ile	Asn	Lys	Ile	Asp	Ser	Glu	Gly	340	345	350
Arg	Ser	Pro	Gly	Ile	Leu	Ala	Thr	Ala	Ser	Ala	Ser	Trp	Asn	Ile	Val	355	360	365
Asn	Leu	Leu	Leu	Ser	Lys	Gly	Ala	Gln	Val	Asp	Ile	Lys	Asp	Asn	Phe	370	375	380
Gly	Arg	Asn	Phe	Leu	His	Leu	Thr	Val	Gln	Gln	Pro	Tyr	Gly	Leu	Lys	385	390	395
Asn	Leu	Arg	Pro	Glu	Phe	Met	Gln	Met	Gln	Gln	Ile	Lys	Glu	Leu	Val	405	410	415
Met	Asp	Glu	Asp	Asn	Asp	Gly	Cys	Thr	Pro	Leu	His	Tyr	Ala	Cys	Arg	420	425	430
Gln	Gly	Gly	Pro	Gly	Ser	Val	Asn	Asn	Leu	Leu	Gly	Phe	Asn	Val	Ser	435	440	445
Ile	His	Ser	Lys	Ser	Lys	Asp	Lys	Lys	Ser	Pro	Leu	His	Phe	Ala	Ala	450	455	460
Ser	Tyr	Gly	Arg	Ile	Asn	Thr	Cys	Gln	Arg	Leu	Leu	Gln	Asp	Ile	Ser	465	470	475
Asp	Thr	Arg	Leu	Leu	Asn	Glu	Gly	Asp	Leu	His	Gly	Met	Thr	Pro	Leu	485	490	495
His	Leu	Ala	Ala	Lys	Asn	Gly	His	Asp	Lys	Val	Val	Gln	Leu	Leu	Leu	500	505	510
Lys	Lys	Gly	Ala	Leu	Phe	Leu	Ser	Asp	His	Asn	Gly	Trp	Thr	Ala	Leu	515	520	525
His	His	Ala	Ser	Met	Gly	Gly	Tyr	Thr	Gln	Thr	Met	Lys	Val	Ile	Leu	530	535	540
Asp	Thr	Asn	Leu	Lys	Cys	Thr	Asp	Arg	Leu	Asp	Glu	Asp	Gly	Asn	Thr	545	550	555
Ala	Leu	His	Phe	Ala	Ala	Arg	Glu	Gly	His	Ala	Lys	Ala	Val	Ala	Leu	565	570	575
Leu	Leu	Ser	His	Asn	Ala	Asp	Ile	Val	Leu	Asn	Lys	Gln	Gln	Ala	Ser	580	585	590
Phe	Leu	His	Leu	Ala	Leu	His	Asn	Lys	Arg	Lys	Glu	Val	Val	Leu	Thr	595	600	605
Ile	Ile	Arg	Ser	Lys	Arg	Trp	Asp	Glu	Cys	Leu	Lys	Ile	Phe	Ser	His	610	615	620
Asn	Ser	Pro	Gly	Asn	Lys	Cys	Pro	Ile	Thr	Glu	Met	Ile	Glu	Tyr	Leu	625	630	635
Pro	Glu	Cys	Met	Lys	Val	Leu	Leu	Asp	Phe	Cys	Met	Leu	His	Ser	Thr	645	650	655
Glu	Asp	Lys	Ser	Cys	Arg	Asp	Tyr	Tyr	Ile	Glu	Tyr	Asn	Phe	Lys	Tyr	660	665	670
Leu	Gln	Cys	Pro	Leu	Glu	Phe	Thr	Lys	Lys	Thr	Pro	Thr	Gln	Asp	Val	675	680	685
Ile	Tyr	Glu	Pro	Leu	Thr	Ala	Leu	Asn	Ala	Met	Val	Gln	Asn	Asn	Arg	690	695	700
Ile	Glu	Leu	Leu	Asn	His	Pro	Val	Cys	Lys	Glu	Tyr	Leu	Leu	Met	Lys	705	710	715
Trp	Leu	Ala	Tyr	Gly	Phe	Arg	Ala	His	Met	Met	Asn	Leu	Gly	Ser	Tyr	725	730	735
Cys	Leu	Gly	Leu	Ile	Pro	Met	Thr	Ile	Leu	Val	Val	Asn	Ile	Lys	Pro	740	745	750
Gly	Met	Ala	Phe	Asn	Ser	Thr	Gly	Ile	Ile	Asn	Glu	Thr	Ser	Asp	His	755	760	765

Ser Glu Ile Leu Asp Thr Thr Asn Ser Tyr Leu Ile Lys Thr Cys Met  
 770 775 780  
 Ile Leu Val Phe Leu Ser Ser Ile Phe Gly Tyr Cys Lys Glu Ala Gly  
 785 790 795 800  
 Gln Ile Phe Gln Gln Lys Arg Asn Tyr Phe Met Asp Ile Ser Asn Val  
 805 810 815  
 Leu Glu Trp Ile Ile Tyr Thr Thr Gly Ile Ile Phe Val Leu Pro Leu  
 820 825 830  
 Phe Val Glu Ile Pro Ala His Leu Gln Trp Gln Cys Gly Ala Ile Ala  
 835 840 845  
 Val Tyr Phe Tyr Trp Met Asn Phe Leu Leu Tyr Leu Gln Arg Phe Glu  
 850 855 860  
 Asn Cys Gly Ile Phe Ile Val Met Leu Glu Val Ile Leu Lys Thr Leu  
 865 870 875 880  
 Leu Arg Ser Thr Val Val Phe Ile Phe Leu Leu Leu Ala Phe Gly Leu  
 885 890 895  
 Ser Phe Tyr Ile Leu Leu Asn Leu Gln Asp Pro Phe Ser Ser Pro Leu  
 900 905 910  
 Leu Ser Ile Ile Gln Thr Phe Ser Met Met Leu Gly Asp Ile Asn Tyr  
 915 920 925  
 Arg Glu Ser Phe Leu Glu Pro Tyr Leu Arg Asn Glu Leu Ala His Pro  
 930 935 940  
 Val Leu Ser Phe Ala Gln Leu Val Ser Phe Thr Ile Phe Val Pro Ile  
 945 950 955 960  
 Val Leu Met Asn Leu Leu Ile Gly Leu Ala Val Gly Asp Ile Ala Glu  
 965 970 975  
 Val Gln Lys His Ala Ser Leu Lys Arg Ile Ala Met Gln Val Glu Leu  
 980 985 990  
 His Thr Ser Leu Glu Lys Lys Leu Pro Leu Trp Phe Leu Arg Lys Val  
 995 1000 1005  
 Asp Gln Lys Ser Thr Ile Val Tyr Pro Asn Lys Pro Arg Ser Gly Gly  
 1010 1015 1020  
 Met Leu Phe His Ile Phe Cys Phe Leu Phe Cys Thr Gly Glu Ile Arg  
 1025 1030 1035 1040  
 Gln Glu Ile Pro Asn Ala Asp Lys Ser Leu Glu Met Glu Ile Leu Lys  
 1045 1050 1055  
 Gln Lys Tyr Arg Leu Lys Asp Leu Thr Phe Leu Leu Glu Lys Gln His  
 1060 1065 1070  
 Glu Leu Ile Lys Leu Ile Ile Gln Lys Met Glu Ile Ile Ser Glu Thr  
 1075 1080 1085  
 Glu Asp Asp Asp Ser His Cys Ser Phe Gln Asp Arg Phe Lys Lys Glu  
 1090 1095 1100  
 Gln Met Glu Gln Arg Asn Ser Arg Trp Asn Thr Val Leu Arg Ala Val  
 1105 1110 1115 1120  
 Lys Ala Lys Thr His His Leu Glu Pro \*  
 1125 1129

&lt;210&gt; 1230

&lt;211&gt; 682

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1230

Met Asn Ala Ser Ser Glu Gly Glu Ser Phe Ala Gly Ser Val Gln Ile  
 1 5 10 15  
 Pro Gly Gly Thr Thr Val Leu Val Glu Leu Thr Pro Asp Ile His Ile  
 20 25 30  
 Cys Gly Ile Cys Lys Gln Gln Phe Asn Asn Leu Asp Ala Phe Val Ala  
 35 40 45  
 His Lys Gln Ser Gly Cys Gln Leu Thr Gly Thr Ser Ala Ala Ala Pro  
 50 55 60



Ser Thr Val Gln Phe Val Ser Glu Glu Thr Val Pro Ala Thr Gln Thr  
 65 70 75 80  
 Gln Thr Thr Thr Arg Thr Ile Thr Ser Glu Thr Gln Thr Ile Thr Val  
 85 90 95  
 Ser Ala Pro Glu Phe Val Phe Glu His Gly Tyr Gln Thr Tyr Leu Pro  
 100 105 110  
 Thr Glu Ser Asn Glu Asn Gln Thr Ala Thr Val Ile Ser Leu Pro Ala  
 115 120 125  
 Lys Ser Arg Thr Lys Lys Pro Thr Thr Pro Pro Ala Gln Lys Arg Leu  
 130 135 140  
 Asn Cys Cys Tyr Pro Gly Cys Gln Phe Lys Thr Ala Tyr Gly Met Lys  
 145 150 155 160  
 Asp Met Glu Arg His Leu Lys Ile His Thr Gly Asp Lys Pro His Lys  
 165 170 175  
 Cys Glu Val Cys Gly Lys Cys Phe Ser Arg Lys Asp Lys Leu Lys Thr  
 180 185 190  
 His Met Arg Cys His Thr Gly Val Lys Pro Tyr Lys Cys Lys Thr Cys  
 195 200 205  
 Asp Tyr Ala Ala Ala Asp Ser Ser Ser Leu Asn Lys His Leu Arg Ile  
 210 215 220  
 His Ser Asp Glu Arg Pro Phe Lys Cys Gln Ile Cys Pro Tyr Ala Ser  
 225 230 235 240  
 Arg Asn Ser Ser Gln Leu Thr Val His Leu Arg Ser His Thr Gly Asp  
 245 250 255  
 Ala Pro Phe Gln Cys Trp Leu Cys Ser Ala Lys Phe Lys Ile Ser Ser  
 260 265 270  
 Asp Leu Lys Arg His Met Arg Val His Ser Gly Glu Lys Pro Phe Lys  
 275 280 285  
 Cys Glu Phe Cys Asn Val Arg Cys Thr Met Lys Gly Asn Leu Lys Ser  
 290 295 300  
 His Ile Arg Ile Lys His Ser Gly Asn Asn Phe Lys Cys Pro His Cys  
 305 310 315 320  
 Asp Phe Leu Gly Asp Ser Lys Ala Thr Leu Arg Lys His Ser Arg Val  
 325 330 335  
 His Gln Ser Glu His Pro Glu Lys Cys Ser Glu Cys Ser Tyr Ser Cys  
 340 345 350  
 Ser Ser Lys Ala Ala Leu Arg Ile His Glu Arg Ile His Cys Thr Asp  
 355 360 365  
 Arg Pro Phe Lys Cys Asn Tyr Cys Ser Phe Asp Thr Lys Gln Pro Ser  
 370 375 380  
 Asn Leu Ser Lys His Met Lys Lys Phe His Gly Asp Met Val Lys Thr  
 385 390 395 400  
 Glu Ala Leu Glu Arg Lys Asp Thr Gly Arg Gln Ser Ser Arg Gln Val  
 405 410 415  
 Ala Lys Leu Asp Ala Lys Lys Ser Phe His Cys Asp Ile Cys Asp Ala  
 420 425 430  
 Ser Phe Met Arg Glu Asp Ser Leu Arg Ser His Lys Arg Gln His Ser  
 435 440 445  
 Glu Tyr Ser Glu Ser Lys Asn Ser Asp Val Thr Val Leu Gln Phe Gln  
 450 455 460  
 Ile Asp Pro Ser Lys Gln Pro Ala Thr Pro Leu Thr Val Gly His Leu  
 465 470 475 480  
 Gln Val Pro Leu Gln Pro Ser Gln Val Pro Gln Phe Ser Glu Gly Arg  
 485 490 495  
 Val Lys Ile Ile Val Gly His Gln Val Pro Gln Ala Asn Thr Ile Val  
 500 505 510  
 Gln Ala Ala Ala Ala Val Asn Ile Val Pro Pro Ala Leu Val Ala  
 515 520 525  
 Gln Asn Pro Glu Glu Leu Pro Gly Asn Ser Arg Leu Gln Ile Leu Arg  
 530 535 540  
 Gln Val Ser Leu Ile Ala Pro Pro Gln Ser Ser Arg Cys Pro Ser Glu  
 545 550 555 560  
 Ala Gly Ala Met Thr Gln Pro Ala Val Leu Leu Thr Thr His Glu Gln  
 565 570 575

Thr Asp Gly Ala Thr Leu His Gln Thr Leu Ile Pro Thr Ala Ser Gly  
                   580                  585                  590  
 Gly Pro Gln Glu Gly Ser Gly Asn Gln Thr Phe Ile Thr Ser Ser Gly  
                   595                  600                  605  
 Ile Thr Cys Thr Asp Phe Glu Gly Leu Asn Ala Leu Ile Gln Glu Gly  
                   610                  615                  620  
 Thr Ala Glu Val Thr Val Val Ser Asp Gly Gly Gln Asn Ile Ala Val  
                   625                  630                  635                  640  
 Ala Thr Thr Ala Pro Pro Val Phe Ser Ser Ser Ser Gln Gln Glu Leu  
                   645                  650                  655  
 Pro Lys Gln Thr Tyr Ser Ile Ile Gln Gly Ala Ala His Pro Ala Leu  
                   660                  665                  670  
 Leu Cys Pro Ala Asp Ser Ile Pro Asp \*  
                   675                  680 681

&lt;210&gt; 1231

&lt;211&gt; 572

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1231

Met Cys Ser Lys Gln Val Asp Pro Ser Glu Gly Ala Ser Ser His Leu  
   1                  5                  10                  15  
 Lys His Arg Gly Gly Ser Arg Ala Ala His Leu Glu Val Arg Arg Leu  
                   20                  25                  30  
 Leu Arg Arg Leu Val Gly Ala Leu Val Ala Glu Ala Gly Phe Cys Tyr  
                   35                  40                  45  
 Val Gln Val Ala Glu Gly Gln Arg Val Val Gly Val Leu Glu Val Ala  
                   50                  55                  60  
 Glu Ala Ala Ala Ala Pro Val Gln His Glu Pro Thr Ala Ala Val Ala  
                   65                  70                  75                  80  
 Thr Gln Ser Arg Trp Phe Pro Arg Gly Thr Arg Pro Gly Leu Cys Ser  
                   85                  90                  95  
 Leu Pro Ile Ala Val Ala Ala Leu Leu Cys Pro Gly Ser Gly Pro Gly  
                   100                  105                  110  
 Ala Gln Ser Gly Leu Glu Phe Val Glu Arg Pro Pro Pro Ser Pro Leu  
                   115                  120                  125  
 Ala Val Val Leu Ala Arg Trp Pro Leu Pro Pro Pro Ala Gly Arg Cys  
                   130                  135                  140  
 Pro Arg Asp Ala Pro Glu Ala Arg Val Pro Glu Lys Ala Arg Ala Glu  
                   145                  150                  155                  160  
 Gly Ser Glu Arg Glu Asn Asn Tyr Gly Cys Gly Val Val Gly Gly Glu  
                   165                  170                  175  
 Met Thr Thr Leu Val Leu Asp Asn Gly Ala Tyr Asn Ala Lys Ile Gly  
                   180                  185                  190  
 Tyr Ser His Glu Asn Val Ser Val Ile Pro Asn Cys Gln Phe Arg Ser  
                   195                  200                  205  
 Lys Thr Ala Arg Leu Lys Thr Phe Thr Ala Asn Gln Ile Asp Glu Ile  
                   210                  215                  220  
 Lys Asp Pro Ser Gly Leu Phe Tyr Ile Leu Pro Phe Gln Lys Gly Tyr  
                   225                  230                  235                  240  
 Leu Val Asn Trp Asp Val Gln Arg Gln Val Trp Asp Tyr Leu Phe Gly  
                   245                  250                  255  
 Lys Glu Met Tyr Gln Val Asp Phe Leu Asp Thr Asn Ile Ile Ile Thr  
                   260                  265                  270  
 Glu Pro Tyr Phe Asn Phe Thr Ser Ile Gln Glu Ser Met Asn Glu Ile  
                   275                  280                  285  
 Leu Phe Glu Glu Tyr Gln Phe Gln Ala Val Leu Arg Val Asn Ala Gly  
                   290                  295                  300  
 Ala Leu Ser Ala His Arg Tyr Phe Arg Asp Asn Pro Ser Glu Leu Cys  
                   305                  310                  315                  320

Cys Ile Ile Val Asp Ser Gly Tyr Ser Phe Thr His Ile Val Pro Tyr  
 325 330 335  
 Cys Arg Ser Lys Lys Lys Lys Glu Ala Ile Ile Arg Ile Asn Val Gly  
 340 345 350  
 Gly Lys Leu Leu Thr Asn His Leu Lys Glu Ile Ile Ser Tyr Arg Gln  
 355 360 365  
 Leu His Val Met Asp Glu Thr His Val Ile Asn Gln Val Lys Glu Asp  
 370 375 380  
 Val Cys Tyr Val Ser Gln Asp Phe Tyr Arg Asp Met Asp Ile Ala Lys  
 385 390 395 400  
 Leu Lys Gly Glu Glu Asn Thr Val Met Ile Asp Tyr Val Leu Pro Asp  
 405 410 415  
 Phe Ser Thr Ile Lys Lys Gly Phe Cys Lys Pro Arg Glu Glu Met Val  
 420 425 430  
 Leu Ser Gly Lys Tyr Lys Ser Gly Glu Gln Ile Leu Arg Leu Ala Asn  
 435 440 445  
 Glu Arg Phe Ala Val Pro Glu Ile Leu Phe Asn Pro Ser Asp Ile Gly  
 450 455 460  
 Ile Gln Glu Met Gly Ile Pro Glu Ala Ile Val Tyr Ser Ile Gln Asn  
 465 470 475 480  
 Leu Pro Glu Glu Met Gln Pro His Phe Phe Lys Asn Ile Val Leu Thr  
 485 490 495  
 Gly Gly Asn Ser Leu Phe Pro Gly Phe Arg Asp Arg Val Tyr Ser Glu  
 500 505 510  
 Val Arg Cys Leu Thr Pro Thr Asp Tyr Asp Val Ser Val Val Leu Pro  
 515 520 525  
 Glu Asn Pro Ile Thr Tyr Ala Trp Glu Gly Gly Lys Leu Ile Ser Glu  
 530 535 540  
 Asn Asp Asp Phe Glu Asp Met Val Val Thr Arg Glu Asp Tyr Glu Glu  
 545 550 555 560  
 Asn Gly His Ser Val Cys Glu Glu Lys Phe Asp Ile  
 565 570 572

<210> 1232  
 <211> 232  
 <212> PRT  
 <213> Homo sapiens

<400> 1232  
 Met Ser Arg Pro Ala Pro Gly Arg Arg Ala Ala Pro Thr Ala Thr Ala  
 1 5 10 15  
 Ala Ala Ala Met Asn Ile Phe Arg Leu Thr Gly Asp Leu Ser His Leu  
 20 25 30  
 Ala Ala Ile Val Ile Leu Leu Leu Lys Ile Trp Lys Thr Arg Ser Cys  
 35 40 45  
 Ala Gly Ile Ser Gly Lys Ser Gln Leu Leu Phe Ala Leu Val Phe Thr  
 50 55 60  
 Thr Arg Tyr Leu Asp Leu Phe Thr Ser Phe Ile Ser Leu Tyr Asn Thr  
 65 70 75 80  
 Ser Met Lys Val Ile Tyr Leu Ala Cys Ser Tyr Ala Thr Val Tyr Leu  
 85 90 95  
 Ile Tyr Leu Lys Phe Lys Ala Thr Tyr Asp Gly Asn His Asp Thr Phe  
 100 105 110  
 Arg Val Glu Phe Leu Val Val Pro Val Gly Gly Leu Ser Phe Leu Val  
 115 120 125  
 Asn His Asp Phe Ser Pro Leu Glu Ile Leu Trp Thr Phe Ser Ile Tyr  
 130 135 140  
 Leu Glu Ser Val Ala Ile Leu Pro Gln Leu Phe Met Ile Ser Lys Thr  
 145 150 155 160  
 Gly Glu Ala Glu Thr Ile Thr Thr His Tyr Leu Phe Phe Leu Gly Leu  
 165 170 175

Tyr Arg Ala Leu Tyr Leu Val Asn Trp Ile Trp Arg Phe Tyr Phe Glu  
                   180                  185                  190  
 Gly Phe Phe Asp Leu Ile Ala Val Val Ala Gly Val Val Gln Thr Ile  
                   195                  200                  205  
 Leu Tyr Cys Asp Phe Phe Tyr Leu Tyr Ile Thr Lys Val Leu Lys Gly  
                   210                  215                  220  
 Lys Lys Leu Ser Leu Pro Ala \*  
 225                  230 231

<210> 1233  
 <211> 145  
 <212> PRT  
 <213> Homo sapiens

<400> 1233  
 Met Glu Leu Val Gln Val Leu Lys Arg Gly Leu Gln Gln Ile Thr Gly  
   1                  5                  10                  15  
 His Gly Gly Leu Arg Gly Tyr Leu Arg Val Phe Phe Arg Thr Asn Asp  
                   20                  25                  30  
 Ala Lys Val Gly Thr Leu Val Gly Glu Asp Lys Tyr Gly Asn Lys Tyr  
                   35                  40                  45  
 Tyr Glu Asp Asn Lys Gln Phe Phe Gly Arg His Arg Trp Val Val Tyr  
                   50                  55                  60  
 Thr Thr Glu Met Asn Gly Lys Asn Thr Phe Trp Asp Val Asp Gly Ser  
                   65                  70                  75                  80  
 Met Val Pro Pro Glu Trp His Arg Trp Leu His Ser Met Thr Asp Asp  
                   85                  90                  95  
 Pro Pro Thr Thr Lys Pro Leu Thr Ala Arg Lys Phe Ile Trp Thr Asn  
                   100                  105                  110  
 His Lys Phe Asn Val Thr Gly Thr Pro Glu Gln Tyr Val Pro Tyr Ser  
                   115                  120                  125  
 Thr Thr Arg Lys Lys Ile Gln Glu Trp Ile Pro Pro Ser Thr Pro Tyr  
                   130                  135                  140  
 Lys  
 145

<210> 1234  
 <211> 226  
 <212> PRT  
 <213> Homo sapiens

<400> 1234  
 Met Ala Thr His Ala Leu Glu Ile Ala Gly Leu Phe Leu Gly Gly Val  
   1                  5                  10                  15  
 Gly Met Val Gly Thr Val Ala Val Thr Val Met Pro Gln Trp Arg Val  
                   20                  25                  30  
 Ser Ala Phe Ile Glu Asn Asn Ile Val Val Phe Glu Asn Phe Trp Glu  
                   35                  40                  45  
 Gly Leu Trp Met Asn Cys Val Arg Gln Ala Asn Ile Arg Met Gln Cys  
                   50                  55                  60  
 Lys Ile Tyr Asp Ser Leu Leu Ala Leu Ser Pro Asp Leu Gln Ala Ala  
                   65                  70                  75                  80  
 Arg Gly Leu Met Cys Ala Ala Ser Val Met Ser Phe Leu Ala Phe Met  
                   85                  90                  95  
 Met Ala Ile Leu Gly Met Lys Cys Thr Arg Cys Thr Gly Asp Asn Glu  
                   100                  105                  110  
 Lys Val Lys Ala His Ile Leu Leu Thr Ala Gly Ile Ile Phe Ile Ile  
                   115                  120                  125

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Thr Gly Met Val Val Leu Ile Pro Val Ser Trp Val Ala Asn Ala Ile
 130          135          140
Ile Arg Asp Phe Tyr Asn Ser Ile Val Asn Val Ala Gln Lys Arg Glu
145          150          155          160
Leu Gly Glu Ala Leu Tyr Leu Gly Trp Thr Thr Ala Leu Val Leu Ile
          165          170          175
Val Gly Gly Ala Leu Phe Cys Cys Val Phe Cys Cys Asn Glu Lys Ser
          180          185          190
Ser Ser Tyr Arg Tyr Ser Ile Pro Ser His Arg Thr Thr Gln Lys Ser
          195          200          205
Tyr His Thr Gly Lys Lys Ser Pro Ser Val Tyr Ser Arg Ser Gln Tyr
          210          215          220
Val *
225

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<210> 1235
<211> 148
<212> PRT
<213> Homo sapiens

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<400> 1235
Met Arg Lys Ile Cys Gln Val Val Pro Ala Gly Leu Ala Phe Ile Leu
 1          5          10          15
Asp Ile Ser Pro Val Ala His Arg Val Ala Leu Cys His Leu Ala Gly
          20          25          30
Cys Gln Glu Gln Ala Ala Trp Tyr His Thr Leu Gln Ile Leu Phe Phe
          35          40          45
Leu Val Ser Ala Tyr Phe Phe Ser Cys Pro Val Pro Glu Lys Tyr Phe
          50          55          60
Pro Gly Ser Cys Asp Ile Val Gly His Gly His Gln Ile Phe His Ala
          65          70          75          80
Phe Leu Ser Ile Cys Thr Leu Ser Gln Leu Glu Ala Ile Leu Leu Asp
          85          90          95
Tyr Gln Gly Arg Gln Glu Ile Phe Leu Gln Arg His Gly Pro Leu Ser
          100          105          110
Val His Met Ala Cys Leu Ser Phe Phe Phe Leu Ala Ala Cys Ser Ala
          115          120          125
Ala Thr Ala Ala Leu Leu Arg His Lys Val Lys Ala Arg Leu Thr Lys
          130          135          140
Lys Asp Ser *
145          147

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<210> 1236
<211> 329
<212> PRT
<213> Homo sapiens

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```

<400> 1236
Met Ser Cys Pro Gly Ser Ser Tyr Arg Thr Val Val Arg Pro Thr Tyr
 1          5          10          15
Lys Val Met Tyr Lys Ile Val Thr Ala Arg Glu Trp Arg Cys Cys Pro
          20          25          30
Gly His Ser Arg Val Ser Cys Glu Glu Val Ala Gly Ser Ser Ala Ser
          35          40          45
Leu Glu Pro Met Trp Ser Gly Ser Thr Met Arg Arg Met Ala Leu Arg
          50          55          60
Pro Thr Ala Phe Ser Gly Cys Leu Asn Cys Ser Lys Val Ser Glu Leu
          65          70          75          80

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Thr Glu Arg Leu Lys Val Leu Glu Ala Lys Met Thr Met Leu Thr Val
      85                      90                      95
Ile Glu Gln Pro Val Pro Pro Thr Pro Ala Thr Pro Glu Asp Pro Ala
      100                    105
Pro Leu Trp Gly Pro Pro Pro Ala Gln Gly Ser Pro Gly Asp Gly Gly
      115                    120                    125
Leu Gln Asp Gln Val Gly Ala Trp Gly Leu Pro Gly Pro Thr Gly Pro
      130                    135                    140
Lys Gly Asp Ala Gly Ser Arg Gly Pro Met Gly Met Arg Gly Pro Pro
      145                    150                    155                    160
Gly Asp Pro Leu Leu Ser Asn Thr Phe Thr Glu Thr Asn Asn His Trp
      165                    170                    175
Pro Gln Gly Pro Thr Gly Pro Pro Gly Pro Pro Gly Pro Met Gly Pro
      180                    185                    190
Pro Gly Pro Pro Gly Pro Thr Gly Val Pro Gly Ser Pro Gly His Ile
      195                    200                    205
Gly Pro Pro Gly Pro Thr Gly Pro Lys Gly Ile Ser Gly His Pro Gly
      210                    215                    220
Glu Lys Gly Glu Arg Gly Leu Arg Gly Glu Pro Gly Pro Gln Gly Ser
      225                    230                    235                    240
Ala Gly Gln Arg Gly Glu Pro Gly Pro Lys Gly Asp Pro Gly Glu Lys
      245                    250                    255
Ser His Trp Gly Glu Gly Leu His Gln Leu Arg Glu Ala Leu Lys Ile
      260                    265                    270
Leu Ala Glu Arg Val Leu Ile Leu Glu Thr Met Ile Gly Leu Tyr Glu
      275                    280                    285
Pro Glu Leu Gly Ser Gly Ala Gly Pro Ala Gly Thr Gly Thr Pro Ser
      290                    295                    300
Leu Leu Arg Gly Lys Arg Gly Gly His Ala Thr Asn Tyr Arg Ile Val
      305                    310                    315                    320
Ala Pro Arg Ser Arg Asp Glu Arg Gly
      325                    329

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<210> 1237  
 <211> 357  
 <212> PRT  
 <213> Homo sapiens

```

      <400> 1237
Met Arg Met Lys Tyr Gly Gly Gln Glu Phe Trp Ala Asp Leu Asn Ala
  1      5                      10                      15
Met Asn Val Tyr Glu Thr Thr Glu Phe Asp Gln Leu Arg Arg Leu Ser
      20                    25                    30
Thr Pro Pro Ser Ser Asn Val Asn Ser Ile Tyr His Thr Val Trp Lys
      35                    40                    45
Phe Phe Cys Arg Asp His Phe Gly Trp Arg Glu Tyr Pro Glu Ser Val
      50                    55                    60
Ile Arg Leu Ile Glu Glu Ala Asn Ser Arg Gly Leu Lys Glu Val Arg
      65                    70                    75                    80
Phe Met Met Trp Asn Asn His Tyr Ile Leu His Asn Ser Phe Phe Arg
      85                    90                    95
Arg Glu Ile Lys Arg Arg Pro Leu Phe Arg Ser Cys Phe Ile Leu Leu
      100                    105                    110
Pro Tyr Leu Gln Thr Leu Gly Gly Val Pro Thr Gln Ala Pro Pro Pro
      115                    120                    125
Leu Glu Ala Thr Ser Ser Ser Gln Ile Ile Cys Pro Asp Gly Val Thr
      130                    135                    140
Ser Ala Asn Phe Tyr Pro Glu Thr Trp Val Tyr Met His Pro Ser Gln
      145                    150                    155                    160
Asp Phe Ile Gln Val Pro Val Ser Ala Glu Asp Lys Ser Tyr Arg Ile
      165                    170                    175

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Ile Tyr Asn Leu Phe His Lys Thr Val Pro Glu Phe Lys Tyr Arg Ile
      180      185      190
Leu Gln Ile Leu Arg Val Gln Asn Gln Phe Leu Trp Glu Lys Tyr Lys
      195      200      205
Arg Lys Lys Glu Tyr Met Asn Arg Lys Met Phe Gly Arg Asp Arg Ile
      210      215      220
Ile Asn Glu Arg His Leu Phe His Gly Thr Ser Gln Asp Val Val Asp
      225      230      235      240
Gly Ile Cys Lys His Asn Phe Asp Pro Arg Val Cys Gly Lys His Ala
      245      250      255
Thr Met Phe Gly Gln Gly Ser Tyr Phe Ala Lys Lys Ala Ser Tyr Ser
      260      265      270
His Asn Phe Ser Lys Lys Ser Ser Lys Gly Val His Phe Met Phe Leu
      275      280      285
Ala Lys Val Leu Thr Gly Arg Tyr Thr Met Gly Ser His Gly Met Arg
      290      295      300
Arg Pro Pro Pro Val Asn Pro Gly Ser Val Thr Ser Asp Leu Tyr Asp
      305      310      315      320
Ser Cys Val Asp Asn Phe Phe Glu Pro Gln Ile Phe Val Ile Phe Asn
      325      330      335
Asp Asp Gln Ser Tyr Pro Tyr Phe Val Ile Gln Tyr Glu Glu Val Ser
      340      345      350
Asn Thr Val Ser Ile
      355      357

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<210> 1238
<211> 1401
<212> PRT
<213> Homo sapiens

```

```

<400> 1238
Met Leu Ser Asp Ser Lys Leu Trp Lys Gly Ala Arg Ser Val Tyr His
  1      5      10      15
Gln Leu Phe Met Ser Ser Leu Leu Met Asp Leu Lys Tyr Lys Lys Leu
      20      25      30
Phe Ala Val Arg Phe Ala Lys Asn Tyr Glu Arg Leu Gln Ser Asp Tyr
      35      40      45
Val Thr Asp Asp His Asp Arg Glu Phe Ser Val Ala Asp Leu Ser Val
      50      55      60
Gln Ile Phe Thr Val Pro Ser Leu Ala Arg Met Leu Ile Thr Glu Glu
      65      70      75      80
Asn Leu Met Ser Ile Ile Ile Lys Thr Phe Met Asp His Leu Arg His
      85      90      95
Arg Asp Ala Gln Gly Arg Phe Gln Phe Glu Arg Tyr Thr Ala Leu Gln
      100      105      110
Ala Phe Lys Phe Arg Arg Val Gln Ser Leu Ile Leu Asp Leu Lys Tyr
      115      120      125
Val Leu Ile Ser Lys Pro Thr Glu Trp Ser Asp Glu Leu Arg Gln Lys
      130      135      140
Phe Leu Glu Gly Phe Asp Ala Phe Leu Glu Leu Leu Lys Cys Met Gln
      145      150      155      160
Gly Met Asp Pro Ile Thr Arg Gln Val Gly Gln His Ile Glu Met Glu
      165      170      175
Pro Glu Trp Glu Ala Ala Phe Thr Leu Gln Met Lys Leu Thr His Val
      180      185      190
Ile Ser Met Met Gln Asp Trp Cys Ala Ser Asp Glu Lys Val Leu Ile
      195      200      205
Glu Ala Tyr Lys Lys Cys Leu Ala Val Leu Met Gln Cys His Gly Gly
      210      215      220
Tyr Thr Asp Gly Glu Gln Pro Ile Thr Leu Ser Ile Cys Gly His Ser
      225      230      235      240

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Val	Glu	Thr	Ile	Arg	Tyr	Cys	Val	Ser	Gln	Glu	Lys	Val	Ser	Ile	His
				245					250					255	
Leu	Pro	Val	Ser	Arg	Leu	Leu	Ala	Gly	Leu	His	Val	Leu	Leu	Ser	Lys
				260				265						270	
Ser	Glu	Val	Ala	Tyr	Lys	Phe	Pro	Glu	Leu	Leu	Pro	Leu	Ser	Glu	Leu
		275					280					285			
Ser	Pro	Pro	Met	Leu	Ile	Glu	His	Pro	Leu	Arg	Cys	Leu	Val	Leu	Cys
		290				295					300				
Ala	Gln	Val	His	Ala	Gly	Met	Trp	Arg	Arg	Asn	Gly	Phe	Ser	Leu	Val
		305			310					315					320
Asn	Gln	Ile	Tyr	Tyr	His	Asn	Val	Lys	Cys	Arg	Arg	Glu	Met	Phe	
			325					330					335		
Asp	Lys	Asp	Val	Val	Met	Leu	Gln	Thr	Gly	Val	Ser	Met	Met	Asp	Pro
			340					345					350		
Asn	His	Phe	Leu	Met	Ile	Met	Leu	Ser	Arg	Phe	Glu	Leu	Tyr	Gln	Ile
		355				360						365			
Phe	Ser	Thr	Pro	Asp	Tyr	Gly	Lys	Arg	Phe	Ser	Ser	Glu	Ile	Thr	His
		370				375					380				
Lys	Asp	Val	Val	Gln	Gln	Asn	Asn	Thr	Leu	Ile	Glu	Glu	Met	Leu	Tyr
		385			390					395					400
Leu	Ile	Ile	Met	Leu	Val	Gly	Glu	Arg	Phe	Ser	Pro	Gly	Val	Gly	Gln
			405						410					415	
Val	Asn	Ala	Thr	Asp	Glu	Ile	Lys	Arg	Glu	Ile	Ile	His	Gln	Leu	Ser
			420					425					430		
Ile	Lys	Pro	Met	Ala	His	Ser	Glu	Leu	Val	Lys	Ser	Leu	Pro	Glu	Asp
		435					440					445			
Glu	Asn	Lys	Glu	Thr	Gly	Met	Glu	Ser	Val	Ile	Glu	Ala	Val	Ala	His
		450				455					460				
Phe	Lys	Lys	Pro	Gly	Leu	Thr	Gly	Arg	Gly	Met	Tyr	Glu	Leu	Lys	Pro
		465			470					475					480
Glu	Cys	Ala	Lys	Glu	Phe	Asn	Leu	Tyr	Phe	Tyr	His	Phe	Ser	Arg	Ala
			485					490						495	
Glu	Gln	Ser	Lys	Ala	Glu	Glu	Ala	Gln	Arg	Lys	Leu	Lys	Arg	Gln	Asn
			500					505					510		
Arg	Glu	Asp	Thr	Ala	Leu	Pro	Pro	Pro	Val	Leu	Pro	Pro	Phe	Cys	Pro
		515				520						525			
Leu	Phe	Ala	Ser	Leu	Val	Asn	Ile	Leu	Gln	Ser	Asp	Val	Met	Leu	Cys
		530				535						540			
Ile	Met	Gly	Thr	Ile	Leu	Gln	Trp	Ala	Val	Glu	His	Asn	Gly	Tyr	Ala
		545			550					555					560
Trp	Ser	Glu	Ser	Met	Leu	Gln	Arg	Val	Leu	His	Leu	Ile	Gly	Met	Ala
			565					570						575	
Leu	Gln	Glu	Glu	Lys	Gln	His	Leu	Glu	Asn	Val	Thr	Glu	Glu	His	Val
			580					585					590		
Val	Thr	Phe	Thr	Phe	Thr	Gln	Lys	Ile	Ser	Lys	Pro	Gly	Glu	Ala	Pro
		595				600						605			
Lys	Asn	Ser	Pro	Ser	Ile	Leu	Ala	Met	Leu	Glu	Thr	Leu	Gln	Asn	Ala
		610				615					620				
Pro	Tyr	Leu	Glu	Val	His	Lys	Asp	Met	Ile	Arg	Trp	Ile	Leu	Lys	Thr
		625			630					635					640
Phe	Asn	Ala	Val	Lys	Lys	Met	Arg	Glu	Ser	Ser	Pro	Thr	Ser	Pro	Val
			645					650						655	
Ala	Glu	Thr	Glu	Gly	Thr	Ile	Met	Glu	Glu	Ser	Ser	Arg	Asp	Lys	Asp
			660					665					670		
Lys	Ala	Glu	Arg	Lys	Arg	Lys	Ala	Glu	Ile	Ala	Arg	Leu	Arg	Arg	Glu
		675				680					685				
Lys	Ile	Met	Ala	Gln	Met	Ser	Glu	Met	Gln	Arg	His	Phe	Ile	Asp	Glu
		690				695					700				
Asn	Lys	Glu	Leu	Phe	Gln	Gln	Thr	Leu	Glu	Leu	Asp	Ala	Ser	Thr	Ser
		705			710					715					720
Ala	Val	Leu	Asp	His	Ser	Pro	Val	Ala	Ser	Asp	Met	Thr	Leu	Thr	Ala
			725					730						735	
Leu	Gly	Pro	Ala	Gln	Thr	Gln	Val	Pro	Glu	Gln	Arg	Gln	Phe	Val	Thr
			740					745						750	



Cys Ile Leu Cys Gln Glu Glu Gln Glu Val Lys Val Glu Ser Arg Ala  
 755 760 765  
 Met Val Leu Ala Ala Phe Val Gln Arg Ser Thr Val Leu Ser Lys Asn  
 770 775 780  
 Arg Ser Lys Phe Ile Gln Asp Pro Glu Lys Tyr Asp Pro Leu Phe Met  
 785 790 795 800  
 His Pro Asp Leu Ser Cys Gly Thr His Thr Ser Ser Cys Gly His Ile  
 805 810 815  
 Met His Ala His Cys Trp Gln Arg Tyr Phe Asp Ser Val Gln Ala Lys  
 820 825 830  
 Glu Gln Arg Arg Gln Gln Arg Leu Arg Leu His Thr Ser Tyr Asp Val  
 835 840 845  
 Glu Asn Gly Glu Phe Leu Cys Pro Leu Cys Glu Cys Leu Ser Asn Thr  
 850 855 860  
 Val Ile Pro Leu Leu Leu Pro Pro Arg Asn Ile Phe Asn Asn Arg Leu  
 865 870 875 880  
 Asn Phe Ser Asp Gln Pro Asn Leu Thr Gln Trp Ile Arg Thr Ile Ser  
 885 890 895  
 Gln Gln Ile Lys Ala Leu Gln Phe Leu Arg Lys Glu Glu Ser Thr Pro  
 900 905 910  
 Asn Asn Ala Ser Thr Lys Asn Ser Glu Asn Val Asp Glu Leu Gln Leu  
 915 920 925  
 Pro Glu Gly Phe Arg Pro Asp Phe Arg Pro Lys Ile Pro Tyr Ser Glu  
 930 935 940  
 Ser Ile Lys Glu Met Leu Thr Thr Phe Gly Thr Ala Thr Tyr Lys Val  
 945 950 955 960  
 Gly Leu Lys Val His Pro Asn Glu Glu Asp Pro Arg Val Pro Ile Met  
 965 970 975  
 Cys Trp Gly Ser Cys Ala Tyr Thr Ile Gln Ser Ile Glu Arg Ile Leu  
 980 985 990  
 Ser Asp Glu Asp Lys Pro Leu Phe Gly Pro Leu Pro Cys Arg Leu Asp  
 995 1000 1005  
 Asp Cys Leu Arg Ser Leu Thr Arg Phe Ala Ala Ala His Trp Thr Val  
 1010 1015 1020  
 Ala Ser Val Ser Val Val Gln Gly His Phe Cys Lys Pro Phe Ala Ser  
 1025 1030 1035 1040  
 Leu Val Pro Asn Asp Ser His Glu Glu Leu Pro Cys Ile Leu Asp Ile  
 1045 1050 1055  
 Asp Met Phe His Leu Leu Val Gly Leu Val Leu Ala Phe Pro Ala Leu  
 1060 1065 1070  
 Gln Cys Gln Asp Phe Ser Gly Ile Ser Leu Gly Thr Gly Asp Leu His  
 1075 1080 1085  
 Ile Phe His Leu Val Thr Met Ala His Ile Ile Gln Ile Leu Leu Thr  
 1090 1095 1100  
 Ser Cys Thr Glu Glu Asn Gly Met Asp Gln Glu Asn Pro Pro Cys Glu  
 1105 1110 1115 1120  
 Glu Glu Ser Ala Val Leu Ala Leu Tyr Lys Thr Leu His Gln Tyr Thr  
 1125 1130 1135  
 Gly Ser Ala Leu Lys Glu Ile Pro Ser Gly Trp His Leu Trp Arg Ser  
 1140 1145 1150  
 Val Arg Ala Gly Ile Met Pro Phe Leu Lys Cys Ser Ala Leu Phe Phe  
 1155 1160 1165  
 His Tyr Leu Asn Gly Val Pro Ser Pro Pro Asp Ile Gln Val Pro Gly  
 1170 1175 1180  
 Thr Ser His Phe Glu His Leu Cys Ser Tyr Leu Ser Leu Pro Asn Asn  
 1185 1190 1195 1200  
 Leu Ile Cys Leu Phe Gln Glu Asn Ser Glu Ile Met Asn Ser Leu Ile  
 1205 1210 1215  
 Glu Ser Trp Cys Arg Asn Ser Glu Val Lys Arg Tyr Leu Glu Gly Glu  
 1220 1225 1230  
 Arg Asp Ala Ile Arg Tyr Pro Arg Glu Ser Asn Lys Leu Ile Asn Leu  
 1235 1240 1245  
 Pro Glu Asp Tyr Ser Ser Leu Ile Asn Gln Ala Ser Asn Phe Ser Cys  
 1250 1255 1260

Pro Lys Ser Gly Gly Asp Lys Ser Arg Ala Pro Thr Leu Cys Leu Val  
 1265 1270 1275 1280  
 Cys Gly Ser Leu Leu Cys Ser Gln Ser Tyr Cys Cys Gln Thr Glu Leu  
 1285 1290 1295  
 Glu Gly Glu Asp Val Gly Ala Cys Thr Ala His Thr Tyr Ser Cys Gly  
 1300 1305 1310  
 Ser Gly Val Gly Ile Phe Leu Arg Val Arg Glu Cys Gln Val Leu Phe  
 1315 1320 1325  
 Leu Ala Gly Lys Thr Lys Gly Cys Phe Tyr Ser Pro Pro Tyr Leu Asp  
 1330 1335 1340  
 Asp Tyr Gly Glu Thr Asp Gln Gly Leu Arg Arg Gly Asn Pro Leu His  
 1345 1350 1355 1360  
 Leu Cys Lys Glu Arg Phe Lys Lys Ile Gln Lys Leu Trp His Gln His  
 1365 1370 1375  
 Ser Val Thr Glu Glu Ile Gly His Ala Gln Glu Ala Asn Gln Thr Leu  
 1380 1385 1390  
 Val Gly Ile Asp Trp Gln His Leu \*  
 1395 1400

<210> 1239  
 <211> 274  
 <212> PRT  
 <213> Homo sapiens

<400> 1239  
 Met Ala Thr Thr Val Ser Thr Gln Arg Gly Pro Val Tyr Ile Gly Glu  
 1 5 10 15  
 Leu Pro Gln Asp Phe Leu Arg Ile Thr Pro Thr Gln Gln Gln Arg Gln  
 20 25 30  
 Val Gln Leu Asp Ala Gln Ala Ala Gln Gln Leu Gln Tyr Gly Gly Ala  
 35 40 45  
 Val Gly Thr Val Gly Arg Leu Asn Ile Thr Val Val Gln Ala Lys Leu  
 50 55 60  
 Ala Lys Asn Tyr Gly Met Thr Arg Met Asp Pro Tyr Cys Arg Leu Arg  
 65 70 75 80  
 Leu Gly Tyr Ala Val Tyr Glu Thr Pro Thr Ala His Asn Gly Ala Lys  
 85 90 95  
 Asn Pro Arg Trp Asn Lys Val Ile His Cys Thr Val Pro Pro Gly Val  
 100 105 110  
 Asp Ser Phe Tyr Leu Glu Ile Phe Asp Glu Arg Ala Phe Ser Met Asp  
 115 120 125  
 Asp Arg Ile Ala Trp Thr His Ile Thr Ile Pro Glu Ser Leu Arg Gln  
 130 135 140  
 Gly Lys Val Glu Asp Lys Trp Tyr Ser Leu Ser Gly Arg Gln Gly Asp  
 145 150 155 160  
 Asp Lys Glu Gly Met Ile Asn Leu Val Met Ser Tyr Ala Leu Leu Pro  
 165 170 175  
 Ala Ala Met Val Met Pro Pro Gln Pro Val Val Leu Met Pro Thr Val  
 180 185 190  
 Tyr Gln Gln Gly Val Gly Tyr Val Pro Ile Thr Gly Met Pro Ala Val  
 195 200 205  
 Cys Ser Pro Gly Met Val Pro Val Ala Leu Pro Pro Ala Ala Val Asn  
 210 215 220  
 Ala Gln Pro Arg Cys Ser Glu Glu Asp Leu Lys Ala Ile Gln Asp Met  
 225 230 235 240  
 Phe Pro Asn Met Asp Gln Glu Val Ile Arg Ser Val Leu Glu Ala Gln  
 245 250 255  
 Arg Gly Asn Lys Asp Ala Ala Ile Asn Ser Leu Leu Gln Met Gly Glu  
 260 265 270  
 Glu Pro  
 274

<210> 1240  
 <211> 380  
 <212> PRT  
 <213> Homo sapiens

<400> 1240  
 Leu Glu Arg Thr Pro Ala Ser Ala Asp Met Ala Trp Thr Lys Tyr Gln  
 1 5 10 15  
 Leu Phe Leu Ala Gly Leu Met Leu Val Thr Gly Ser Ile Asn Thr Leu  
 20 25 30  
 Ser Ala Lys Trp Ala Asp Asn Phe Met Ala Glu Gly Cys Gly Gly Ser  
 35 40 45  
 Lys Glu His Ser Phe Gln His Pro Phe Leu Gln Ala Val Gly Met Phe  
 50 55 60  
 Leu Gly Glu Phe Ser Cys Leu Ala Ala Phe Tyr Leu Leu Arg Cys Arg  
 65 70 75 80  
 Ala Ala Gly Gln Ser Asp Ser Ser Val Asp Pro Gln Gln Pro Phe Asn  
 85 90 95  
 Pro Leu Leu Phe Leu Pro Pro Ala Leu Cys Asp Met Thr Gly Thr Ser  
 100 105 110  
 Leu Met Tyr Val Ala Leu Asn Met Thr Ser Ala Ser Ser Phe Gln Met  
 115 120 125  
 Leu Arg Gly Ala Val Ile Ile Phe Thr Gly Leu Phe Ser Val Ala Phe  
 130 135 140  
 Leu Gly Arg Arg Leu Val Leu Ser Gln Trp Leu Gly Ile Leu Ala Thr  
 145 150 155 160  
 Ile Ala Gly Leu Val Val Val Gly Leu Ala Asp Leu Leu Ser Lys His  
 165 170 175  
 Asp Ser Gln His Lys Leu Ser Glu Val Ile Thr Gly Asp Leu Leu Ile  
 180 185 190  
 Ile Met Ala Gln Ile Ile Val Ala Ile Gln Met Val Leu Glu Glu Lys  
 195 200 205  
 Phe Val Tyr Lys His Asn Val His Pro Leu Arg Ala Val Gly Thr Glu  
 210 215 220  
 Gly Leu Phe Gly Phe Val Ile Leu Ser Leu Leu Leu Val Pro Met Tyr  
 225 230 235 240  
 Tyr Ile Pro Ala Gly Ser Phe Ser Gly Asn Pro Arg Gly Thr Leu Glu  
 245 250 255  
 Asp Ala Leu Asp Ala Phe Cys Gln Val Gly Gln Gln Pro Leu Ile Ala  
 260 265 270  
 Val Ala Leu Leu Gly Asn Ile Ser Ser Ile Ala Phe Phe Asn Phe Ala  
 275 280 285  
 Gly Ile Ser Val Thr Lys Glu Leu Ser Ala Thr Thr Arg Met Val Leu  
 290 295 300  
 Asp Ser Leu Arg Thr Val Val Ile Trp Ala Leu Ser Leu Ala Leu Gly  
 305 310 315 320  
 Trp Glu Ala Phe His Ala Leu Gln Ile Leu Gly Phe Leu Ile Leu Leu  
 325 330 335  
 Ile Gly Thr Ala Leu Tyr Asn Gly Leu His Arg Pro Leu Leu Gly Arg  
 340 345 350  
 Leu Ser Arg Gly Arg Pro Leu Ala Glu Glu Ser Glu Gln Glu Arg Leu  
 355 360 365  
 Leu Gly Gly Thr Arg Thr Pro Ile Asn Asp Ala Ser  
 370 375 380

<210> 1241  
 <211> 564  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1241

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Met Gln Leu Val Leu Arg Lys Arg Ile Cys Val Asn Val His Gly Arg
 1           5           10           15
Gln Gly Phe Ala Gln Ser Leu Leu Lys Lys Met Ser His Arg Ser Ser
      20           25           30
Ile Pro Gly Cys Gly Val Thr Phe Glu Ile Val Ser Asn Ile Pro Glu
      35           40           45
Asp Ala Gln Gly Val Glu Glu Arg Glu Ala Leu Ala Arg Met Ala Ala
      50           55           60
Asn Val Glu Asn Pro Ala Ser Ala Asp Ser Glu Ala Tyr Ile Glu Lys
      65           70           75           80
Tyr Leu Arg Ser Val Leu Ala Val Glu Asn Leu Leu Thr Leu Asp Arg
      85           90           95
Leu Arg Gln Glu Val Ala Val Lys Glu Gln Leu Thr Gly Lys Gly Lys
      100          105          110
Leu Ser Arg Arg Ser Ile Ser Ser Pro Asn Val Asn Arg Leu Ser Gly
      115          120          125
Ser Arg Gln Asp Leu Ile Pro Ser Tyr Ser Leu Gly Ser Asn Lys Gly
      130          135          140
Arg Trp Glu Ser Gln Gln Asp Val Ser Gln Thr Thr Val Ser Arg Gly
      145          150          155          160
Ile Ala Pro Ala Pro Ala Leu Ser Val Ser Pro Gln Asn Asn His Ser
      165          170          175
Pro Asp Pro Gly Leu Ser Asn Leu Ala Ala Ser Tyr Leu Asn Pro Val
      180          185          190
Lys Ser Phe Val Pro Gln Met Pro Lys Leu Leu Lys Ser Leu Phe Pro
      195          200          205
Val Arg Asp Glu Lys Arg Gly Lys Arg Pro Ser Pro Leu Ala His Gln
      210          215          220
Pro Val Pro Arg Ile Met Val Gln Ser Ala Ser Pro Asp Ile Arg Val
      225          230          235          240
Thr Arg Met Glu Glu Ala Gln Pro Glu Met Gly Pro Asp Val Leu Val
      245          250          255
Gln Thr Met Gly Ala Pro Ala Leu Lys Ile Cys Asp Lys Pro Ala Lys
      260          265          270
Val Pro Ser Pro Pro Pro Val Ile Ala Val Thr Ala Val Thr Pro Ala
      275          280          285
Pro Glu Ala Gln Asp Gly Pro Pro Ser Pro Leu Ser Glu Ala Ser Ser
      290          295          300
Gly Tyr Phe Ser His Ser Val Ser Thr Ala Thr Leu Ser Asp Ala Leu
      305          310          315          320
Gly Pro Gly Leu Asp Ala Ala Ala Pro Pro Gly Ser Met Pro Thr Ala
      325          330          335
Pro Glu Ala Glu Pro Glu Ala Pro Ile Ser His Pro Pro Pro Pro Thr
      340          345          350
Ala Val Pro Ala Glu Glu Pro Pro Gly Pro Gln Gln Leu Val Ser Pro
      355          360          365
Gly Arg Glu Arg Pro Asp Leu Glu Ala Pro Ala Pro Gly Ser Pro Phe
      370          375          380
Arg Val Arg Arg Val Arg Ala Ser Glu Leu Arg Ser Phe Ser Arg Met
      385          390          395          400
Leu Ala Gly Asp Pro Gly Cys Ser Pro Gly Ala Glu Gly Asn Ala Pro
      405          410          415
Ala Pro Gly Ala Gly Gly Gln Ala Leu Ala Ser Asp Ser Glu Glu Ala
      420          425          430
Asp Glu Val Pro Glu Trp Leu Arg Glu Gly Glu Phe Val Thr Val Gly
      435          440          445
Ala His Lys Thr Gly Val Val Arg Tyr Val Gly Pro Ala Asp Phe Gln
      450          455          460
Glu Gly Thr Trp Val Gly Val Glu Leu Asp Leu Pro Ser Gly Lys Asn
      465          470          475          480

```

Asp Gly Ser Ile Gly Gly Lys Gln Tyr Phe Arg Cys Asn Pro Gly Tyr  
                             485                            490                            495  
 Gly Leu Leu Val Arg Pro Ser Arg Val Arg Arg Ala Thr Gly Pro Val  
                             500                            505                            510  
 Arg Arg Arg Ser Thr Gly Leu Arg Leu Gly Ala Pro Glu Ala Arg Arg  
                             515                            520                            525  
 Ser Ala Thr Leu Ser Gly Ser Ala Thr Asn Leu Ala Ser Leu Thr Ala  
                             530                            535                            540  
 Ala Leu Ala Lys Ala Asp Arg Ser His Lys Asn Pro Glu Asn Arg Lys  
 545                            550                            555                            560  
 Ser Trp Ala Ser  
                             564

<210> 1242  
 <211> 115  
 <212> PRT  
 <213> Homo sapiens

<400> 1242  
 Met Glu Lys Pro Leu Phe Pro Leu Val Pro Leu His Trp Phe Gly Phe  
 1                            5                            10                            15  
 Gly Tyr Thr Ala Leu Val Val Ser Gly Gly Ile Val Gly Tyr Val Lys  
                             20                            25                            30  
 Thr Gly Ser Val Pro Ser Leu Ala Ala Gly Leu Leu Phe Gly Ser Leu  
                             35                            40                            45  
 Ala Gly Leu Gly Ala Tyr Gln Leu Tyr Gln Asp Pro Arg Asn Val Trp  
                             50                            55                            60  
 Gly Phe Leu Ala Ala Thr Ser Val Thr Phe Val Gly Val Met Gly Met  
 65                            70                            75                            80  
 Arg Ser Tyr Tyr Tyr Gly Lys Phe Met Pro Val Gly Leu Ile Ala Gly  
                             85                            90                            95  
 Ala Ser Leu Leu Met Ala Ala Lys Val Gly Val Arg Met Leu Met Thr  
                             100                            105                            110  
 Ser Asp \*  
 114

<210> 1243  
 <211> 160  
 <212> PRT  
 <213> Homo sapiens

<400> 1243  
 Met Glu Leu Pro Ala Val Asn Leu Lys Val Ile Leu Leu Gly His Trp  
 1                            5                            10                            15  
 Leu Leu Thr Thr Trp Gly Cys Ile Val Phe Ser Gly Ser Tyr Ala Trp  
                             20                            25                            30  
 Ala Asn Phe Thr Ile Leu Ala Leu Gly Val Trp Ala Val Ala Gln Arg  
                             35                            40                            45  
 Asp Ser Ile Asp Ala Ile Ser Met Phe Leu Gly Gly Leu Leu Ala Thr  
                             50                            55                            60  
 Ile Phe Leu Asp Ile Val His Ile Ser Ile Phe Tyr Pro Arg Val Ser  
 65                            70                            75                            80  
 Leu Thr Asp Thr Gly Arg Phe Gly Val Gly Met Ala Ile Leu Ser Leu  
                             85                            90                            95  
 Leu Leu Lys Pro Leu Ser Cys Cys Phe Val Tyr His Met Tyr Arg Glu  
                             100                            105                            110  
 Arg Gly Gly Glu Leu Leu Val His Thr Gly Phe Leu Gly Ser Ser Gln  
                             115                            120                            125

Asp Arg Ser Ala Tyr Gln Thr Ile Asp Ser Ala Glu Ala Pro Ala Asp  
 130 135 140  
 Pro Phe Ala Val Pro Glu Gly Arg Ser Gln Asp Ala Arg Gly Tyr \*  
 145 150 155 159

<210> 1244  
 <211> 606  
 <212> PRT  
 <213> Homo sapiens

<400> 1244  
 Met Asp Pro Ala Glu Ala Val Leu Gln Glu Lys Ala Leu Lys Phe Met  
 1 5 10 15  
 Cys Ser Met Pro Arg Ser Leu Trp Leu Gly Cys Ser Ser Leu Ala Asp  
 20 25 30  
 Ser Met Pro Ser Leu Arg Cys Leu Tyr Asn Pro Gly Thr Gly Ala Leu  
 35 40 45  
 Thr Ala Phe Met Asn Ser Ser Glu Arg Glu Asp Cys Asn Asn Gly Glu  
 50 55 60  
 Pro Pro Arg Lys Ile Ile Pro Glu Lys Asn Ser Leu Arg Gln Thr Tyr  
 65 70 75 80  
 Asn Ser Cys Ala Arg Leu Cys Leu Asn Gln Glu Thr Val Cys Leu Ala  
 85 90 95  
 Ser Thr Ala Met Lys Thr Glu Asn Cys Val Ala Lys Thr Lys Leu Ala  
 100 105 110  
 Asn Gly Thr Ser Ser Met Ile Val Pro Lys Gln Arg Lys Leu Ser Ala  
 115 120 125  
 Ser Tyr Glu Lys Glu Lys Glu Leu Cys Val Lys Tyr Phe Glu Gln Trp  
 130 135 140  
 Ser Glu Ser Asp Gln Val Glu Phe Val Glu His Leu Ile Ser Gln Met  
 145 150 155 160  
 Cys His Tyr Gln His Gly His Ile Asn Ser Tyr Leu Lys Pro Met Leu  
 165 170 175  
 Gln Arg Asp Phe Ile Thr Ala Leu Pro Ala Arg Gly Leu Asp His Ile  
 180 185 190  
 Ala Glu Asn Ile Leu Ser Tyr Leu Asp Ala Lys Ser Leu Cys Ala Ala  
 195 200 205  
 Glu Leu Val Cys Lys Glu Trp Tyr Arg Val Thr Ser Asp Gly Met Leu  
 210 215 220  
 Trp Lys Lys Leu Ile Glu Arg Met Val Arg Thr Asp Ser Leu Trp Arg  
 225 230 235 240  
 Gly Leu Ala Glu Arg Arg Gly Trp Gly Gln Tyr Leu Phe Lys Asn Lys  
 245 250 255  
 Pro Pro Asp Gly Asn Ala Pro Pro Asn Ser Phe Tyr Arg Ala Leu Tyr  
 260 265 270  
 Pro Lys Ile Ile Gln Asp Ile Glu Thr Ile Glu Ser Asn Trp Arg Cys  
 275 280 285  
 Gly Arg His Ser Leu Gln Arg Ile His Cys Arg Ser Glu Thr Ser Lys  
 290 295 300  
 Gly Val Tyr Cys Leu Gln Tyr Asp Asp Gln Lys Ile Val Ser Gly Leu  
 305 310 315 320  
 Arg Asp Asn Thr Ile Lys Ile Trp Asp Lys Asn Thr Leu Glu Cys Lys  
 325 330 335  
 Arg Ile Leu Thr Gly His Thr Gly Ser Val Leu Cys Leu Gln Tyr Asp  
 340 345 350  
 Glu Arg Val Ile Ile Thr Gly Ser Ser Asp Ser Thr Val Arg Val Trp  
 355 360 365  
 Asp Val Asn Thr Gly Glu Met Leu Asn Thr Leu Ile His His Cys Glu  
 370 375 380  
 Ala Val Leu His Leu Arg Phe Asn Asn Gly Met Met Val Thr Cys Ser  
 385 390 395 400

Lys Asp Arg Ser Ile Ala Val Trp Asp Met Ala Ser Pro Thr Asp Ile  
 405 410 415  
 Thr Leu Arg Arg Val Leu Val Gly His Arg Ala Ala Val Asn Val Val  
 420 425 430  
 Asp Phe Asp Asp Lys Tyr Ile Val Ser Ala Ser Gly Asp Arg Thr Ile  
 435 440 445  
 Lys Val Trp Asn Thr Ser Thr Cys Glu Phe Val Arg Thr Leu Asn Gly  
 450 455 460  
 His Lys Arg Gly Ile Ala Cys Leu Gln Tyr Arg Asp Arg Leu Val Val  
 465 470 475 480  
 Ser Gly Ser Ser Asp Asn Thr Ile Arg Leu Trp Asp Ile Glu Cys Gly  
 485 490 495  
 Ala Cys Leu Arg Val Leu Glu Gly His Glu Glu Leu Val Arg Cys Ile  
 500 505 510  
 Arg Phe Asp Asn Lys Arg Ile Val Ser Gly Ala Tyr Asp Gly Lys Ile  
 515 520 525  
 Lys Val Trp Asp Leu Val Ala Ala Leu Asp Pro Arg Ala Pro Ala Gly  
 530 535 540  
 Thr Leu Cys Leu Arg Thr Leu Val Glu His Ser Gly Arg Val Phe Arg  
 545 550 555 560  
 Leu Gln Phe Asp Glu Phe Gln Ile Val Ser Ser Ser His Asp Asp Thr  
 565 570 575  
 Ile Leu Ile Trp Asp Phe Leu Asn Asp Pro Ala Ala Gln Ala Glu Pro  
 580 585 590  
 Pro Arg Ser Pro Ser Arg Thr Tyr Thr Tyr Ile Ser Arg \*  
 595 600 605

&lt;210&gt; 1245

&lt;211&gt; 580

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1245

Met Asp Pro Ala Glu Ala Val Leu Gln Glu Lys Ala Leu Lys Phe Met  
 1 5 10 15  
 Cys Ser Met Pro Arg Ser Leu Trp Leu Gly Cys Ser Ser Leu Ala Asp  
 20 25 30  
 Ser Met Pro Ser Leu Arg Cys Leu Tyr Asn Pro Gly Thr Gly Ala Leu  
 35 40 45  
 Thr Ala Phe Gln Thr Tyr Asn Ser Cys Ala Arg Leu Cys Leu Asn Gln  
 50 55 60  
 Glu Thr Val Cys Leu Ala Ser Thr Ala Met Lys Thr Glu Asn Cys Val  
 65 70 75 80  
 Ala Lys Thr Lys Leu Ala Asn Gly Thr Ser Ser Met Ile Val Pro Lys  
 85 90 95  
 Gln Arg Lys Leu Ser Ala Ser Tyr Glu Lys Glu Lys Glu Leu Cys Val  
 100 105 110  
 Lys Tyr Phe Glu Gln Trp Ser Glu Ser Asp Gln Val Glu Phe Val Glu  
 115 120 125  
 His Leu Ile Ser Gln Met Cys His Tyr Gln His Gly His Ile Asn Ser  
 130 135 140  
 Tyr Leu Lys Pro Met Leu Gln Arg Asp Phe Ile Thr Ala Leu Pro Ala  
 145 150 155 160  
 Arg Gly Leu Asp His Ile Ala Glu Asn Ile Leu Ser Tyr Leu Asp Ala  
 165 170 175  
 Lys Ser Leu Cys Ala Ala Glu Leu Val Cys Lys Glu Trp Tyr Arg Val  
 180 185 190  
 Thr Ser Asp Gly Met Leu Trp Lys Lys Leu Ile Glu Arg Met Val Arg  
 195 200 205  
 Thr Asp Ser Leu Trp Arg Gly Leu Ala Glu Arg Arg Gly Trp Gly Gln  
 210 215 220

Tyr Leu Phe Lys Asn Lys Pro Pro Asp Gly Asn Ala Pro Pro Asn Ser  
 225 230 235 240  
 Phe Tyr Arg Ala Leu Tyr Pro Lys Ile Ile Gln Asp Ile Glu Thr Ile  
 245 250 255  
 Glu Ser Asn Trp Arg Cys Gly Arg His Ser Leu Gln Arg Ile His Cys  
 260 265 270  
 Arg Ser Glu Thr Ser Lys Gly Val Tyr Cys Leu Gln Tyr Asp Asp Gln  
 275 280 285  
 Lys Ile Val Ser Gly Leu Arg Asp Asn Thr Ile Lys Ile Trp Asp Lys  
 290 295 300  
 Asn Thr Leu Glu Cys Lys Arg Ile Leu Thr Gly His Thr Gly Ser Val  
 305 310 315 320  
 Leu Cys Leu Gln Tyr Asp Glu Arg Val Ile Ile Thr Gly Ser Ser Asp  
 325 330 335  
 Ser Thr Val Arg Val Trp Asp Val Asn Thr Gly Glu Met Leu Asn Thr  
 340 345 350  
 Leu Ile His His Cys Glu Ala Val Leu His Leu Arg Phe Asn Asn Gly  
 355 360 365  
 Met Met Val Thr Cys Ser Lys Asp Arg Ser Ile Ala Val Trp Asp Met  
 370 375 380  
 Ala Ser Pro Thr Asp Ile Thr Leu Arg Arg Val Leu Val Gly His Arg  
 385 390 395 400  
 Ala Ala Val Asn Val Val Asp Phe Asp Asp Lys Tyr Ile Val Ser Ala  
 405 410 415  
 Ser Gly Asp Arg Thr Ile Lys Val Trp Asn Thr Ser Thr Cys Glu Phe  
 420 425 430  
 Val Arg Thr Leu Asn Gly His Lys Arg Gly Ile Ala Cys Leu Gln Tyr  
 435 440 445  
 Arg Asp Arg Leu Val Val Ser Gly Ser Ser Asp Asn Thr Ile Arg Leu  
 450 455 460  
 Trp Asp Ile Glu Cys Gly Ala Cys Leu Arg Val Leu Glu Gly His Glu  
 465 470 475 480  
 Glu Leu Val Arg Cys Ile Arg Phe Asp Asn Lys Arg Ile Val Ser Gly  
 485 490 495  
 Ala Tyr Asp Gly Lys Ile Lys Val Trp Asp Leu Val Ala Ala Leu Asp  
 500 505 510  
 Pro Arg Ala Pro Ala Gly Thr Leu Cys Leu Arg Thr Leu Val Glu His  
 515 520 525  
 Ser Gly Arg Val Phe Arg Leu Gln Phe Asp Glu Phe Gln Ile Val Ser  
 530 535 540  
 Ser Ser His Asp Asp Thr Ile Leu Ile Trp Asp Phe Leu Asn Asp Pro  
 545 550 555 560  
 Ala Ala Gln Ala Glu Pro Pro Arg Ser Pro Ser Arg Thr Tyr Thr Tyr  
 565 570 575  
 Ile Ser Arg \*  
 579

<210> 1246  
 <211> 633  
 <212> PRT  
 <213> Homo sapiens

<400> 1246  
 Met Asp Pro Ala Glu Ala Val Leu Gln Glu Lys Ala Leu Lys Phe Met  
 1 5 10 15  
 Met Glu Phe Arg Ser Trp Cys Pro Gly Trp Asn Thr Met Ala Arg Ser  
 20 25 30  
 Arg Leu Thr Ala Thr Ser Thr Ser Arg Val Gln Cys Ser Met Pro Arg  
 35 40 45  
 Ser Leu Trp Leu Gly Cys Ser Ser Leu Ala Asp Ser Met Pro Ser Leu  
 50 55 60



Arg	Cys	Leu	Tyr	Asn	Pro	Gly	Thr	Gly	Ala	Leu	Thr	Ala	Phe	Met	Asn
65					70					75					80
Ser	Ser	Glu	Arg	Glu	Asp	Cys	Asn	Asn	Gly	Glu	Pro	Pro	Arg	Lys	Ile
				85					90					95	
Ile	Pro	Glu	Lys	Asn	Ser	Leu	Arg	Gln	Thr	Tyr	Asn	Ser	Cys	Ala	Arg
			100					105					110		
Leu	Cys	Leu	Asn	Gln	Glu	Thr	Val	Cys	Leu	Ala	Ser	Thr	Ala	Met	Lys
			115				120						125		
Thr	Glu	Asn	Cys	Val	Ala	Lys	Thr	Lys	Leu	Ala	Asn	Gly	Thr	Ser	Ser
			130				135					140			
Met	Ile	Val	Pro	Lys	Gln	Arg	Lys	Leu	Ser	Ala	Ser	Tyr	Glu	Lys	Glu
145					150					155					160
Lys	Glu	Leu	Cys	Val	Lys	Tyr	Phe	Glu	Gln	Trp	Ser	Glu	Ser	Asp	Gln
				165						170				175	
Val	Glu	Phe	Val	Glu	His	Leu	Ile	Ser	Gln	Met	Cys	His	Tyr	Gln	His
			180						185				190		
Gly	His	Ile	Asn	Ser	Tyr	Leu	Lys	Pro	Met	Leu	Gln	Arg	Asp	Phe	Ile
			195				200					205			
Thr	Ala	Leu	Pro	Ala	Arg	Gly	Leu	Asp	His	Ile	Ala	Glu	Asn	Ile	Leu
			210				215					220			
Ser	Tyr	Leu	Asp	Ala	Lys	Ser	Leu	Cys	Ala	Ala	Glu	Leu	Val	Cys	Lys
225					230					235					240
Glu	Trp	Tyr	Arg	Val	Thr	Ser	Asp	Gly	Met	Leu	Trp	Lys	Lys	Leu	Ile
				245					250					255	
Glu	Arg	Met	Val	Arg	Thr	Asp	Ser	Leu	Trp	Arg	Gly	Leu	Ala	Glu	Arg
			260					265					270		
Arg	Gly	Trp	Gly	Gln	Tyr	Leu	Phe	Lys	Asn	Lys	Pro	Pro	Asp	Gly	Asn
			275				280						285		
Ala	Pro	Pro	Asn	Ser	Phe	Tyr	Arg	Ala	Leu	Tyr	Pro	Lys	Ile	Ile	Gln
			290				295					300			
Asp	Ile	Glu	Thr	Ile	Glu	Ser	Asn	Trp	Arg	Cys	Gly	Arg	His	Ser	Leu
305					310					315					320
Gln	Arg	Ile	His	Cys	Arg	Ser	Glu	Thr	Ser	Lys	Gly	Val	Tyr	Cys	Leu
				325						330				335	
Gln	Tyr	Asp	Asp	Gln	Lys	Ile	Val	Ser	Gly	Leu	Arg	Asp	Asn	Thr	Ile
			340						345				350		
Lys	Ile	Trp	Asp	Lys	Asn	Thr	Leu	Glu	Cys	Lys	Arg	Ile	Leu	Thr	Gly
			355				360					365			
His	Thr	Gly	Ser	Val	Leu	Cys	Leu	Gln	Tyr	Asp	Glu	Arg	Val	Ile	Ile
			370				375					380			
Thr	Gly	Ser	Ser	Asp	Ser	Thr	Val	Arg	Val	Trp	Asp	Val	Asn	Thr	Gly
385					390					395					400
Glu	Met	Leu	Asn	Thr	Leu	Ile	His	His	Cys	Glu	Ala	Val	Leu	His	Leu
				405					410					415	
Arg	Phe	Asn	Asn	Gly	Met	Met	Val	Thr	Cys	Ser	Lys	Asp	Arg	Ser	Ile
			420					425					430		
Ala	Val	Trp	Asp	Met	Ala	Ser	Pro	Thr	Asp	Ile	Thr	Leu	Arg	Arg	Val
			435				440					445			
Leu	Val	Gly	His	Arg	Ala	Ala	Val	Asn	Val	Val	Asp	Phe	Asp	Asp	Lys
			450				455					460			
Tyr	Ile	Val	Ser	Ala	Ser	Gly	Asp	Arg	Thr	Ile	Lys	Val	Trp	Asn	Thr
465					470					475					480
Ser	Thr	Cys	Glu	Phe	Val	Arg	Thr	Leu	Asn	Gly	His	Lys	Arg	Gly	Ile
				485					490					495	
Ala	Cys	Leu	Gln	Tyr	Arg	Asp	Arg	Leu	Val	Val	Ser	Gly	Ser	Ser	Asp
			500					505					510		
Asn	Thr	Ile	Arg	Leu	Trp	Asp	Ile	Glu	Cys	Gly	Ala	Cys	Leu	Arg	Val
			515				520					525			
Leu	Glu	Gly	His	Glu	Glu	Leu	Val	Arg	Cys	Ile	Arg	Phe	Asp	Asn	Lys
			530				535					540			
Arg	Ile	Val	Ser	Gly	Ala	Tyr	Asp	Gly	Lys	Ile	Lys	Val	Trp	Asp	Leu
545					550					555					560
Val	Ala	Ala	Leu	Asp	Pro	Arg	Ala	Pro	Ala	Gly	Thr	Leu	Cys	Leu	Arg
				565					570					575	

Thr Leu Val Glu His Ser Gly Arg Val Phe Arg Leu Gln Phe Asp Glu  
 580 585 590  
 Phe Gln Ile Val Ser Ser Ser His Asp Asp Thr Ile Leu Ile Trp Asp  
 595 600 605  
 Phe Leu Asn Asp Pro Ala Ala Gln Ala Glu Pro Pro Arg Ser Pro Ser  
 610 615 620  
 Arg Thr Tyr Thr Tyr Ile Ser Arg \*  
 625 630 632

<210> 1247  
 <211> 431  
 <212> PRT  
 <213> Homo sapiens

<400> 1247  
 Met Ala Ala Asn Leu Ser Arg Asn Gly Pro Ala Leu Gln Glu Ala Tyr  
 1 5 10 15  
 Val Arg Val Val Thr Glu Lys Ser Pro Thr Asp Trp Ala Leu Phe Thr  
 20 25 30  
 Tyr Glu Gly Asn Ser Asn Asp Ile Arg Val Ala Gly Thr Gly Glu Gly  
 35 40 45  
 Gly Leu Glu Glu Met Val Glu Glu Leu Asn Ser Gly Lys Val Met Tyr  
 50 55 60  
 Ala Phe Cys Arg Val Lys Asp Pro Asn Ser Gly Leu Pro Lys Phe Val  
 65 70 75 80  
 Leu Ile Asn Trp Thr Gly Glu Gly Val Asn Asp Val Arg Lys Gly Ala  
 85 90 95  
 Cys Ala Ser His Val Ser Thr Met Ala Ser Phe Leu Lys Gly Ala His  
 100 105 110  
 Val Thr Ile Asn Ala Arg Ala Glu Glu Asp Val Glu Pro Glu Cys Ile  
 115 120 125  
 Met Glu Lys Val Ala Lys Ala Ser Gly Ala Asn Tyr Ser Phe His Lys  
 130 135 140  
 Glu Ser Gly Arg Phe Gln Asp Val Gly Pro Gln Ala Pro Val Gly Ser  
 145 150 155 160  
 Val Tyr Gln Lys Thr Asn Ala Val Ser Glu Ile Lys Arg Val Gly Lys  
 165 170 175  
 Asp Ser Phe Trp Ala Lys Ala Glu Lys Glu Glu Glu Asn Arg Arg Leu  
 180 185 190  
 Glu Glu Lys Arg Arg Ala Glu Glu Ala Gln Arg Gln Leu Glu Gln Glu  
 195 200 205  
 Arg Arg Glu Arg Glu Leu Arg Glu Ala Ala Arg Arg Glu Gln Arg Tyr  
 210 215 220  
 Gln Glu Gln Gly Gly Glu Ala Ser Pro Gln Arg Thr Trp Glu Gln Gln  
 225 230 235 240  
 Gln Glu Val Val Ser Arg Asn Arg Asn Glu Gln Glu Ser Ala Val His  
 245 250 255  
 Pro Arg Glu Ile Phe Lys Gln Lys Glu Arg Ala Met Ser Thr Thr Ser  
 260 265 270  
 Ile Ser Ser Pro Gln Pro Gly Lys Leu Arg Ser Pro Phe Leu Gln Lys  
 275 280 285  
 Gln Leu Thr Gln Pro Glu Thr His Phe Gly Arg Glu Pro Ala Ala Ala  
 290 295 300  
 Ile Ser Arg Pro Arg Ala Asp Leu Pro Ala Glu Glu Pro Ala Pro Ser  
 305 310 315 320  
 Thr Pro Pro Cys Leu Val Gln Ala Glu Glu Ala Val Tyr Glu Glu  
 325 330 335  
 Pro Pro Glu Gln Glu Thr Phe Tyr Glu Gln Pro Pro Leu Val Gln Gln  
 340 345 350  
 Gln Gly Ala Gly Ser Glu His Ile Asp His His Ile Gln Gly Gln Gly  
 355 360 365

Leu Ser Gly Gln Gly Leu Cys Ala Arg Ala Leu Tyr Asp Tyr Gln Ala  
 370 375 380  
 Ala Asp Asp Thr Glu Ile Ser Phe Asp Pro Glu Asn Leu Ile Thr Gly  
 385 390 395 400  
 Ile Glu Val Ile Asp Glu Gly Trp Trp Arg Gly Tyr Gly Pro Asp Gly  
 405 410 415  
 His Phe Gly Met Phe Pro Ala Asn Tyr Val Glu Leu Ile Glu \*  
 420 425 430

<210> 1248  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

<400> 1248  
 Met Ala Phe Phe Thr Gly Leu Trp Gly Pro Phe Thr Cys Val Ser Arg  
 1 5 10 15  
 Val Leu Ser His His Cys Phe Ser Thr Thr Gly Ser Leu Ser Ala Ile  
 20 25 30  
 Gln Lys Met Thr Arg Val Arg Val Val Asp Asn Ser Ala Leu Gly Asn  
 35 40 45  
 Ser Pro Tyr His Arg Ala Pro Arg Cys Ile His Val Tyr Lys Lys Asn  
 50 55 60  
 Gly Val Gly Lys Val Gly Asp Gln Ile Leu Leu Ala Ile Lys Gly Gln  
 65 70 75 80  
 Lys Lys Lys Ala Leu Ile Val Gly His Cys Met Pro Gly Pro Arg Met  
 85 90 95  
 Thr Pro Arg Phe Asp Ser Asn Asn Val Val Leu Ile Glu Asp Asn Gly  
 100 105 110  
 Asn Pro Val Gly Thr Arg Ile Lys Thr Pro Ile Pro Thr Ser Leu Arg  
 115 120 125  
 Lys Arg Glu Gly Glu Tyr Ser Lys Val Leu Ala Ile Ala Gln Asn Phe  
 130 135 140  
 Val \*  
 145

<210> 1249  
 <211> 522  
 <212> PRT  
 <213> Homo sapiens

<400> 1249  
 Met Leu Cys Ala Leu Leu Leu Leu Pro Ser Leu Leu Gly Ala Thr Arg  
 1 5 10 15  
 Ala Ser Pro Thr Ser Gly Pro Gln Glu Cys Ala Lys Gly Ser Thr Val  
 20 25 30  
 Trp Cys Gln Asp Leu Gln Thr Ala Ala Arg Cys Gly Ala Val Gly Tyr  
 35 40 45  
 Cys Gln Gly Ala Val Trp Asn Lys Pro Thr Ala Lys Ser Leu Pro Cys  
 50 55 60  
 Asp Val Cys Gln Asp Ile Ala Ala Ala Ala Gly Asn Gly Leu Asn Pro  
 65 70 75 80  
 Asp Ala Thr Glu Ser Asp Ile Leu Ala Leu Val Met Lys Thr Cys Glu  
 85 90 95  
 Trp Leu Pro Ser Gln Glu Ser Ser Ala Gly Cys Lys Trp Met Val Asp  
 100 105 110  
 Ala His Ser Ser Ala Ile Leu Ser Met Leu Arg Gly Ala Pro Asp Ser  
 115 120 125

Ala Pro Ala Gln Val Cys Thr Ala Leu Ser Leu Cys Glu Pro Leu Gln  
 130 135 140  
 Arg His Leu Ala Thr Leu Arg Pro Leu Ser Lys Glu Asp Thr Phe Glu  
 145 150 155 160  
 Ala Val Ala Pro Phe Met Ala Asn Gly Pro Leu Thr Phe His Pro Arg  
 165 170 175  
 Gln Ala Pro Glu Gly Ala Leu Cys Gln Asp Cys Val Arg Gln Val Ser  
 180 185 190  
 Arg Leu Gln Glu Ala Val Arg Ser Asn Leu Thr Leu Ala Asp Leu Asn  
 195 200 205  
 Ile Gln Glu Gln Cys Glu Ser Leu Gly Pro Gly Leu Ala Val Leu Cys  
 210 215 220  
 Lys Asn Tyr Leu Phe Gln Phe Phe Val Pro Ala Asp Gln Ala Leu Arg  
 225 230 235 240  
 Leu Leu Pro Pro Gln Glu Leu Cys Arg Lys Gly Gly Phe Cys Glu Glu  
 245 250 255  
 Leu Gly Ala Pro Ala Arg Leu Thr Gln Val Val Ala Met Asp Gly Val  
 260 265 270  
 Pro Ser Leu Glu Leu Gly Leu Pro Arg Lys Gln Ser Glu Met Gln Met  
 275 280 285  
 Lys Ala Gly Val Thr Cys Glu Val Cys Met Asn Val Val Gln Lys Leu  
 290 295 300  
 Asp His Trp Leu Met Ser Asn Ser Ser Glu Leu Met Ile Thr His Ala  
 305 310 315 320  
 Leu Glu Arg Val Cys Ser Val Met Pro Ala Ser Ile Thr Lys Glu Cys  
 325 330 335  
 Ile Ile Leu Val Asp Thr Tyr Ser Pro Ser Leu Val Gln Leu Val Ala  
 340 345 350  
 Lys Ile Thr Pro Glu Lys Val Cys Lys Phe Ile Arg Leu Cys Gly Asn  
 355 360 365  
 Arg Arg Arg Ala Arg Ala Val His Asp Ala Tyr Ala Ile Val Pro Ser  
 370 375 380  
 Pro Glu Trp Asp Ala Glu Asn Gln Gly Ser Phe Cys Asn Gly Cys Lys  
 385 390 395 400  
 Arg Leu Leu Thr Val Ser Ser His Asn Leu Glu Ser Lys Ser Thr Lys  
 405 410 415  
 Arg Asp Ile Leu Val Ala Phe Lys Gly Gly Cys Ser Ile Leu Pro Leu  
 420 425 430  
 Pro Tyr Met Ile Gln Cys Lys His Phe Val Thr Gln Tyr Glu Pro Val  
 435 440 445  
 Leu Ile Glu Ser Leu Lys Asp Met Met Asp Pro Val Ala Val Cys Lys  
 450 455 460  
 Lys Val Gly Ala Cys His Gly Pro Arg Thr Pro Leu Leu Gly Thr Asp  
 465 470 475 480  
 Gln Cys Ala Leu Gly Pro Ser Phe Trp Cys Arg Ser Gln Glu Ala Ala  
 485 490 495  
 Lys Leu Cys Asn Ala Val Gln His Cys Gln Lys His Val Trp Lys Glu  
 500 505 510  
 Met His Leu His Ala Gly Glu His Ala \*  
 515 520 521

<210> 1250  
 <211> 363  
 <212> PRT  
 <213> Homo sapiens

<400> 1250  
 Met Leu Cys Ala Leu Leu Leu Leu Pro Ser Leu Leu Gly Ala Thr Arg  
 1 5 10 15  
 Ala Ser Pro Thr Ser Gly Pro Gln Glu Cys Ala Lys Gly Ser Thr Val  
 20 25 30

Trp Cys Gln Asp Leu Gln Thr Ala Ala Arg Cys Gly Ala Val Gly Tyr  
           35                          40                          45  
 Cys Gln Gly Ala Val Trp Asn Lys Pro Thr Ala Lys Ser Leu Pro Cys  
           50                          55                          60  
 Asp Val Cys Gln Asp Ile Ala Ala Ala Ala Gly Asn Gly Leu Asn Pro  
           65                          70                          75                          80  
 Asp Ala Thr Glu Ser Asp Ile Leu Ala Leu Val Met Lys Thr Cys Glu  
                           85                          90                          95  
 Trp Leu Pro Ser Gln Glu Ser Ser Ala Gly Cys Lys Trp Met Val Asp  
                           100                          105                          110  
 Ala His Ser Ser Ala Ile Leu Ser Met Leu Arg Gly Ala Pro Asp Ser  
                           115                          120                          125  
 Ala Pro Ala Gln Val Cys Thr Ala Leu Ser Leu Cys Glu Pro Leu Gln  
                           130                          135                          140  
 Arg His Leu Ala Thr Leu Arg Pro Leu Ser Lys Glu Asp Thr Phe Glu  
           145                          150                          155                          160  
 Ala Val Ala Pro Phe Met Ala Asn Gly Pro Leu Thr Phe His Pro Arg  
                           165                          170                          175  
 Gln Ala Pro Glu Gly Ala Leu Cys Gln Asp Cys Val Arg Gln Leu Val  
                           180                          185                          190  
 Ala Lys Ile Thr Pro Glu Lys Val Cys Lys Phe Ile Arg Leu Cys Gly  
                           195                          200                          205  
 Asn Arg Arg Arg Ala Arg Ala Val His Asp Ala Tyr Ala Ile Val Pro  
                           210                          215                          220  
 Ser Pro Glu Trp Asp Ala Glu Asn Gln Gly Ser Phe Cys Asn Gly Cys  
           225                          230                          235                          240  
 Lys Arg Leu Leu Thr Val Ser Ser His Asn Leu Glu Ser Lys Ser Thr  
                           245                          250                          255  
 Lys Arg Asp Ile Leu Val Ala Phe Lys Gly Gly Cys Ser Ile Leu Pro  
                           260                          265                          270  
 Leu Pro Tyr Met Ile Gln Cys Lys His Phe Val Thr Gln Tyr Glu Pro  
                           275                          280                          285  
 Val Leu Ile Glu Ser Leu Lys Asp Met Met Asp Pro Val Ala Val Cys  
                           290                          295                          300  
 Lys Lys Val Gly Ala Cys His Gly Pro Arg Thr Pro Leu Leu Gly Thr  
           305                          310                          315                          320  
 Asp Gln Cys Ala Leu Gly Pro Ser Phe Trp Cys Arg Ser Gln Glu Ala  
                           325                          330                          335  
 Ala Lys Leu Cys Asn Ala Val Gln His Cys Gln Lys His Val Trp Lys  
                           340                          345                          350  
 Glu Met His Leu His Ala Gly Glu His Ala \*  
           355                          360                          362

&lt;210&gt; 1251

&lt;211&gt; 936

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1251

Met Arg Asp Leu Glu Leu Arg Glu Val Lys Gln Leu Ala Arg Gly His  
   1                          5                          10                          15  
 Thr Ala Gly Tyr Lys Thr Leu Leu Lys Cys Leu Ser Gly Lys Phe Cys  
           20                          25                          30  
 Arg Arg Glu Leu Ile Gly Ile Met Gly Pro Ser Gly Ala Gly Lys Ser  
           35                          40                          45  
 Thr Phe Met Asn Ile Leu Ala Gly Tyr Arg Glu Ser Gly Met Lys Gly  
           50                          55                          60  
 Gln Ile Leu Val Asn Gly Arg Pro Arg Glu Leu Arg Thr Phe Arg Lys  
           65                          70                          75                          80  
 Met Ser Cys Tyr Ile Met Gln Asp Asp Met Leu Leu Pro His Leu Thr  
                           85                          90                          95

Val Leu Glu Ala Met Met Val Ser Ala Asn Leu Lys Leu Ser Glu Lys  
 100 105 110  
 Gln Glu Val Lys Lys Glu Leu Val Thr Glu Ile Leu Thr Ala Leu Gly  
 115 120 125  
 Leu Met Ser Cys Ser His Thr Arg Thr Ala Leu Leu Ser Gly Gly Gln  
 130 135 140  
 Arg Lys Arg Leu Ala Ile Ala Leu Glu Leu Val Asn Asn Pro Pro Val  
 145 150 155 160  
 Met Phe Phe Asp Glu Pro Thr Ser Gly Leu Asp Ser Ala Ser Cys Phe  
 165 170 175  
 Gln Val Val Ser Leu Met Lys Ser Leu Ala Gln Gly Gly Arg Thr Ile  
 180 185 190  
 Ile Cys Thr Ile His Gln Pro Ser Ala Lys Leu Phe Glu Met Phe Asp  
 195 200 205  
 Lys Cys Ile Phe Lys Gly Val Val Thr Asn Leu Ile Pro Tyr Leu Lys  
 210 215 220  
 Gly Leu Gly Leu His Cys Pro Thr Tyr His Asn Pro Ala Asp Phe Ile  
 225 230 235 240  
 Ile Glu Val Ala Ser Gly Glu Tyr Gly Asp Leu Asn Pro Met Leu Phe  
 245 250 255  
 Arg Ala Val Gln Asn Gly Leu Cys Ala Met Ala Glu Lys Lys Ser Ser  
 260 265 270  
 Pro Glu Lys Asn Glu Val Pro Ala Pro Cys Pro Pro Cys Pro Pro Glu  
 275 280 285  
 Val Asp Pro Ile Glu Ser His Thr Phe Ala Thr Ser Thr Leu Thr Gln  
 290 295 300  
 Phe Cys Ile Leu Phe Lys Arg Thr Phe Leu Ser Ile Leu Arg Asp Thr  
 305 310 315 320  
 Val Val Cys Pro Val Val Tyr Cys Ser Ile Val Tyr Trp Met Thr Gly  
 325 330 335  
 Gln Pro Ala Glu Thr Ser Arg Phe Leu Leu Phe Ser Ala Leu Ala Thr  
 340 345 350  
 Ala Thr Ala Leu Val Ala Gln Ser Leu Gly Leu Leu Ile Gly Ala Ala  
 355 360 365  
 Ser Asn Ser Leu Gln Val Ala Thr Phe Val Gly Pro Val Thr Ala Ile  
 370 375 380  
 Pro Val Leu Leu Phe Ser Gly Phe Phe Val Ser Phe Lys Thr Ile Pro  
 385 390 395 400  
 Thr Tyr Leu Gln Trp Ser Ser Tyr Leu Ser Tyr Val Arg Tyr Gly Phe  
 405 410 415  
 Glu Gly Val Ile Leu Thr Ile Tyr Gly Met Glu Arg Gly Asp Leu Thr  
 420 425 430  
 Cys Leu Glu Glu Arg Cys Pro Phe Arg Glu Pro Gln Ser Ile Leu Arg  
 435 440 445  
 Ala Leu Asp Val Glu Asp Ala Lys Leu Tyr Met Asp Phe Leu Val Leu  
 450 455 460  
 Gly Ile Phe Phe Leu Ala Leu Arg Leu Leu Ala Tyr Leu Val Leu Arg  
 465 470 475 480  
 Tyr Arg Glu Cys Gly Phe Cys Ser Leu Asp Ser Ser Ala Asp Leu Ile  
 485 490 495  
 Arg His Val Tyr Phe His Cys Tyr His Thr Lys Leu Lys Gln Trp Gly  
 500 505 510  
 Leu Gln Ala Leu Gln Ser Gln Ala Asp Leu Gly Pro Cys Ile Leu Asp  
 515 520 525  
 Phe Gln Ser Arg Asn Val Ile Pro Asp Ile Pro Asp His Phe Leu Cys  
 530 535 540  
 Leu Trp Glu His Cys Glu Leu Pro Leu Ala Gln Asn Ser Phe Asp Asn  
 545 550 555 560  
 Pro Glu Trp Phe Tyr Arg His Val Glu Ala His Ser Leu Cys Cys Glu  
 565 570 575  
 Tyr Glu Ala Val Gly Lys Asp Asn Pro Val Val Leu Cys Gly Trp Lys  
 580 585 590  
 Gly Cys Thr Cys Thr Phe Lys Asp Arg Ser Lys Leu Arg Glu His Leu  
 595 600 605

Arg Ser His Thr Gln Glu Lys Val Val Ala Cys Pro Thr Cys Gly Gly  
 610 615 620  
 Met Phe Ala Asn Asn Thr Lys Phe Leu Asp His Ile Arg Arg Gln Thr  
 625 630 635 640  
 Ser Leu Asp Gln Gln His Phe Gln Cys Ser His Cys Ser Lys Arg Phe  
 645 650 655  
 Ala Thr Glu Arg Leu Leu Arg Asp His Met Arg Asn His Val Asn His  
 660 665 670  
 Tyr Lys Cys Pro Leu Cys Asp Met Thr Cys Pro Leu Pro Ser Ser Leu  
 675 680 685  
 Arg Asn His Met Arg Phe Arg His Ser Glu Asp Arg Pro Phe Lys Cys  
 690 695 700  
 Asp Cys Cys Asp Tyr Ser Cys Lys Asn Leu Ile Asp Leu Gln Lys His  
 705 710 715 720  
 Leu Asp Thr His Ser Glu Glu Pro Ala Tyr Arg Cys Asp Phe Glu Asn  
 725 730 735  
 Cys Thr Phe Ser Ala Arg Ser Leu Cys Ser Ile Lys Ser His Tyr Arg  
 740 745 750  
 Lys Val His Glu Gly Asp Ser Glu Pro Arg Tyr Lys Cys His Val Cys  
 755 760 765  
 Asp Lys Cys Phe Thr Arg Gly Asn Asn Leu Thr Val His Leu Arg Lys  
 770 775 780  
 Lys His Gln Phe Lys Trp Pro Ser Gly His Pro Arg Phe Arg Tyr Lys  
 785 790 795 800  
 Glu His Glu Asp Gly Tyr Met Arg Leu Gln Leu Val Arg Tyr Glu Ser  
 805 810 815  
 Val Glu Leu Thr Gln Gln Leu Leu Arg Gln Pro Gln Glu Gly Ser Gly  
 820 825 830  
 Leu Gly Thr Ser Leu Asn Glu Ser Ser Leu Gln Gly Ile Ile Leu Glu  
 835 840 845  
 Thr Val Pro Gly Glu Pro Gly Arg Lys Glu Glu Glu Glu Gly Lys  
 850 855 860  
 Gly Ser Glu Gly Thr Ala Leu Ser Ala Ser Gln Asp Asn Pro Ser Ser  
 865 870 875 880  
 Val Ile His Val Val Asn Gln Thr Asn Ala Gln Gly Gln Gln Glu Ile  
 885 890 895  
 Val Tyr Tyr Val Leu Ser Glu Ala Pro Gly Glu Pro Pro Val Pro  
 900 905 910  
 Glu Pro Pro Ser Gly Gly Ile Met Glu Lys Leu Gln Gly Ile Ala Glu  
 915 920 925  
 Glu Pro Glu Ile Gln Met Val \*  
 930 935

&lt;210&gt; 1252

&lt;211&gt; 680

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1252

Met Asp Arg Val Thr Arg Tyr Pro Ile Leu Gly Ile Pro Gln Ala His  
 1 5 10 15  
 Arg Gly Thr Gly Leu Val Leu Asp Gly Asp Thr Ser Tyr Thr Tyr His  
 20 25 30  
 Leu Val Cys Met Gly Pro Glu Ala Ser Gly Trp Gly Gln Asp Glu Pro  
 35 40 45  
 Gln Thr Trp Pro Thr Asp His Arg Ala Gln Gln Gly Val Gln Arg Gln  
 50 55 60  
 Gly Val Ser Tyr Ser Val His Ala Tyr Thr Gly Gln Pro Ser Pro Arg  
 65 70 75 80  
 Gly Leu His Ser Glu Asn Arg Glu Asp Glu Gly Trp Gln Val Tyr Arg  
 85 90 95

Leu Gly Thr Arg Asp Ala His Gln Gly Arg Pro Thr Trp Ala Leu Arg  
 100 105 110  
 Pro Glu Asp Gly Glu Asp Lys Glu Met Lys Thr Tyr Arg Leu Asp Ala  
 115 120 125  
 Gly Asp Ala Asp Pro Arg Arg Leu Cys Asp Leu Glu Arg Glu Arg Trp  
 130 135 140  
 Ala Val Ile Gln Gly Gln Ala Val Arg Lys Ser Ser Thr Val Ala Thr  
 145 150 155 160  
 Leu Gln Gly Thr Pro Asp His Gly Asp Pro Arg Thr Pro Gly Pro Pro  
 165 170 175  
 Arg Ser Thr Pro Leu Glu Glu Asn Val Val Asp Arg Glu Gln Ile Asp  
 180 185 190  
 Phe Leu Ala Ala Arg Gln Gln Phe Leu Ser Leu Glu Gln Ala Asn Lys  
 195 200 205  
 Gly Ala Pro His Ser Ser Pro Ala Arg Gly Thr Pro Ala Gly Thr Thr  
 210 215 220  
 Pro Gly Ala Ser Gln Ala Pro Lys Ala Phe Asn Lys Pro His Leu Ala  
 225 230 235 240  
 Asn Gly His Val Val Pro Ile Lys Pro Gln Val Lys Gly Val Val Arg  
 245 250 255  
 Glu Glu Asn Lys Val Arg Ala Val Pro Thr Trp Ala Ser Val Gln Val  
 260 265 270  
 Val Asp Asp Pro Gly Ser Leu Ala Ser Val Glu Ser Pro Gly Thr Pro  
 275 280 285  
 Lys Glu Thr Pro Ile Glu Arg Glu Ile Arg Leu Ala Gln Glu Arg Glu  
 290 295 300  
 Ala Asp Leu Arg Glu Gln Arg Gly Leu Arg Gln Ala Thr Asp His Gln  
 305 310 315 320  
 Glu Leu Val Glu Ile Pro Thr Arg Pro Leu Leu Thr Lys Leu Ser Leu  
 325 330 335  
 Ile Thr Ala Pro Arg Arg Glu Arg Gly Arg Pro Ser Leu Tyr Val Gln  
 340 345 350  
 Arg Asp Ile Val Gln Glu Thr Gln Arg Glu Glu Asp His Arg Arg Glu  
 355 360 365  
 Gly Leu His Val Gly Arg Ala Ser Thr Pro Asp Trp Val Ser Glu Gly  
 370 375 380  
 Pro Gln Pro Gly Leu Arg Arg Ala Leu Ser Ser Asp Ser Ile Leu Ser  
 385 390 395 400  
 Pro Ala Pro Asp Ala Arg Ala Ala Asp Pro Ala Pro Glu Val Arg Lys  
 405 410 415  
 Val Asn Arg Ile Pro Pro Asp Ala Tyr Gln Pro Tyr Leu Ser Pro Gly  
 420 425 430  
 Thr Pro Gln Leu Glu Phe Ser Ala Phe Gly Ala Phe Gly Lys Pro Ser  
 435 440 445  
 Ser Leu Ser Thr Ala Glu Ala Lys Ala Ala Thr Ser Pro Lys Ala Thr  
 450 455 460  
 Met Ser Pro Arg His Leu Ser Glu Ser Ser Gly Lys Pro Leu Ser Thr  
 465 470 475 480  
 Lys Gln Glu Ala Ser Lys Pro Pro Arg Gly Cys Pro Gln Ala Asn Arg  
 485 490 495  
 Gly Val Val Arg Trp Glu Tyr Phe Arg Leu Arg Pro Leu Arg Phe Arg  
 500 505 510  
 Ala Pro Asp Glu Pro Gln Gln Ala Gln Val Pro His Val Trp Gly Trp  
 515 520 525  
 Glu Val Ala Gly Ala Pro Ala Leu Arg Leu Gln Lys Ser Gln Ser Ser  
 530 535 540  
 Asp Leu Leu Glu Arg Glu Arg Glu Ser Val Leu Arg Arg Glu Gln Glu  
 545 550 555 560  
 Val Ala Glu Glu Arg Arg Asn Ala Leu Phe Pro Glu Val Phe Ser Pro  
 565 570 575  
 Thr Pro Asp Glu Asn Ser Asp Gln Asn Ser Arg Ser Ser Ser Gln Ala  
 580 585 590  
 Ser Gly Ile Thr Gly Ser Tyr Ser Val Ser Glu Ser Pro Phe Phe Ser  
 595 600 605



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Pro Ile His Leu His Ser Asn Val Ala Trp Thr Val Glu Asp Pro Val
  610                      615                      620
Asp Ser Ala Pro Pro Gly Gln Arg Lys Lys Glu Gln Trp Tyr Ala Gly
625                      630                      635                      640
Ile Asn Pro Ser Asp Gly Ile Asn Ser Glu Val Leu Glu Ala Ile Arg
                      645                      650                      655
Val Thr Arg His Lys Asn Ala Met Ala Glu Arg Trp Glu Ser Arg Ile
                      660                      665                      670
Tyr Ala Ser Glu Glu Asp Asp *
                      675                      679

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<210> 1253
<211> 141
<212> PRT
<213> Homo sapiens

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<400> 1253
Met Ser Lys Arg Gly Arg Gly Gly Ser Ser Gly Ala Lys Phe Arg Ile
  1                      5                      10                      15
Ser Leu Gly Leu Pro Val Gly Ala Val Ile Asn Cys Ala Asp Asn Thr
                      20                      25                      30
Gly Ala Lys Asn Leu Tyr Ile Ile Ser Val Lys Gly Ile Lys Gly Arg
                      35                      40                      45
Leu Asn Arg Leu Pro Ala Ala Gly Val Gly Asp Met Val Met Ala Thr
                      50                      55                      60
Val Lys Lys Gly Lys Pro Glu Leu Arg Lys Lys Val His Pro Ala Val
65                      70                      75                      80
Val Ile Arg Gln Arg Lys Ser Tyr Arg Arg Lys Asp Gly Val Phe Leu
                      85                      90                      95
Tyr Phe Glu Asp Asn Ala Gly Val Ile Val Asn Asn Lys Gly Glu Met
                      100                     105                     110
Lys Gly Ser Ala Ile Thr Gly Pro Val Ala Lys Glu Cys Ala Asp Leu
                      115                     120                     125
Trp Pro Arg Ile Ala Ser Asn Ala Gly Ser Ile Ala *
130                      135                      140

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<210> 1254
<211> 372
<212> PRT
<213> Homo sapiens

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<400> 1254
Met Ala Glu Leu Gln Glu Val Gln Ile Thr Glu Glu Lys Pro Leu Leu
  1                      5                      10                      15
Pro Gly Gln Thr Pro Glu Ala Ala Lys Glu Ala Glu Leu Ala Ala Arg
                      20                      25                      30
Ile Leu Leu Asp Gln Gly Gln Thr His Ser Val Glu Thr Pro Tyr Gly
                      35                      40                      45
Ser Val Thr Phe Thr Val Tyr Gly Thr Pro Lys Pro Lys Arg Pro Ala
                      50                      55                      60
Ile Leu Thr Tyr His Asp Val Gly Leu Asn Tyr Lys Ser Cys Phe Gln
65                      70                      75                      80
Pro Leu Phe Gln Phe Glu Asp Met Gln Glu Ile Ile Gln Asn Phe Val
                      85                      90                      95
Arg Val His Val Asp Ala Pro Gly Met Glu Glu Gly Ala Pro Val Phe
                      100                     105                     110
Pro Leu Gly Tyr Gln Tyr Pro Ser Leu Asp Gln Leu Ala Asp Met Ile
115                      120                      125

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Pro Cys Val Leu Gln Tyr Leu Asn Phe Ser Thr Ile Ile Gly Val Gly  
 130 135 140  
 Val Gly Ala Gly Ala Tyr Ile Leu Ala Arg Tyr Ala Leu Asn His Pro  
 145 150 155 160  
 Asp Thr Val Glu Gly Leu Val Leu Ile Asn Ile Asp Pro Asn Ala Lys  
 165 170 175  
 Gly Trp Met Asp Trp Ala Ala His Lys Leu Thr Gly Leu Thr Ser Cys  
 180 185 190  
 Ser Pro Glu Met Ile Leu Gly His Leu Phe Ser Gln Glu Glu Leu Ser  
 195 200 205  
 Gly Asn Ser Glu Leu Ile Gln Lys Tyr Arg Asn Ile Ile Thr His Ala  
 210 215 220  
 Pro Asn Leu Asp Asn Ile Glu Leu Tyr Trp Asn Ser Tyr Asn Asn Arg  
 225 230 235 240  
 Arg Asp Leu Asn Phe Glu Arg Gly Gly Asp Ile Thr Leu Arg Cys Pro  
 245 250 255  
 Val Met Leu Val Val Gly Asp Gln Ala Pro His Glu Asp Ala Val Val  
 260 265 270  
 Glu Cys Asn Ser Lys Leu Asp Pro Thr Gln Thr Ser Phe Leu Lys Met  
 275 280 285  
 Ala Asp Ser Gly Gly Gln Pro Gln Leu Thr Gln Pro Gly Lys Leu Thr  
 290 295 300  
 Glu Ala Phe Lys Tyr Phe Leu Gln Gly Met Gly Tyr Met Ala Ser Ser  
 305 310 315 320  
 Cys Met Thr Arg Leu Ser Arg Ser Arg Thr Ala Ser Leu Thr Ser Ala  
 325 330 335  
 Glu Ser Val Asp Gly Asn Arg Ser Arg Ser Arg Thr Leu Ser Gln Ser  
 340 345 350  
 Arg Glu Ser Gly Thr Leu Ser Ser Gly Pro Pro Gly His Thr Met Glu  
 355 360 365  
 Val Ser Cys \*  
 370 371

&lt;210&gt; 1255

&lt;211&gt; 521

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1255

Met Gly Arg Gly Trp Gly Phe Leu Phe Gly Leu Leu Gly Ala Val Trp  
 1 5 10 15  
 Leu Leu Ser Ser Gly His Gly Glu Glu Gln Pro Pro Glu Thr Ala Ala  
 20 25 30  
 Gln Arg Cys Phe Cys Gln Val Ser Gly Tyr Leu Asp Asp Cys Thr Cys  
 35 40 45  
 Asp Val Glu Thr Ile Asp Arg Phe Asn Asn Tyr Arg Leu Phe Pro Arg  
 50 55 60  
 Leu Gln Lys Leu Leu Glu Ser Asp Tyr Phe Arg Tyr Tyr Lys Val Asn  
 65 70 75 80  
 Leu Lys Arg Pro Cys Pro Phe Trp Asn Asp Ile Ser Gln Cys Gly Arg  
 85 90 95  
 Arg Asp Cys Ala Val Lys Pro Cys Gln Ser Asp Glu Val Pro Asp Gly  
 100 105 110  
 Ile Lys Ser Ala Ser Tyr Lys Tyr Ser Glu Glu Ala Asn Asn Leu Ile  
 115 120 125  
 Glu Glu Cys Glu Gln Ala Glu Arg Leu Gly Ala Val Asp Glu Ser Leu  
 130 135 140  
 Ser Glu Glu Thr Gln Lys Ala Val Leu Gln Trp Thr Lys His Asp Asp  
 145 150 155 160  
 Ser Ser Asp Gly Ile Lys Ser Ala Ser Tyr Lys Tyr Ser Glu Glu Ala  
 165 170 175

Asn Asn Leu Ile Glu Glu Cys Glu Gln Ala Glu Arg Leu Gly Ala Val  
 180 185 190  
 Asp Glu Ser Leu Ser Glu Glu Thr Gln Lys Ala Val Leu Gln Trp Thr  
 195 200 205  
 Lys His Asp Asp Ser Ser Asp Asn Phe Cys Glu Ala Asp Asp Ile Gln  
 210 215 220  
 Ser Pro Glu Ala Glu Tyr Val Asp Leu Leu Leu Asn Pro Glu Arg Tyr  
 225 230 235 240  
 Thr Gly Tyr Lys Gly Pro Asp Ala Trp Lys Ile Trp Asn Val Ile Tyr  
 245 250 255  
 Glu Glu Asn Cys Phe Lys Pro Gln Thr Ile Lys Arg Pro Leu Asn Pro  
 260 265 270  
 Leu Ala Ser Gly Gln Gly Thr Ser Glu Glu Asn Thr Phe Tyr Ser Trp  
 275 280 285  
 Leu Glu Gly Leu Cys Val Glu Lys Arg Ala Phe Tyr Arg Leu Ile Ser  
 290 295 300  
 Gly Leu His Ala Ser Ile Asn Val His Leu Ser Ala Arg Tyr Leu Leu  
 305 310 315 320  
 Gln Glu Thr Trp Leu Glu Lys Lys Trp Gly His Asn Ile Thr Glu Phe  
 325 330 335  
 Gln Gln Arg Phe Asp Gly Ile Leu Thr Glu Gly Glu Gly Pro Arg Arg  
 340 345 350  
 Leu Lys Asn Leu Tyr Phe Leu Tyr Leu Ile Glu Leu Arg Ala Leu Ser  
 355 360 365  
 Lys Val Leu Pro Phe Phe Glu Arg Pro Asp Phe Gln Leu Phe Thr Gly  
 370 375 380  
 Asn Lys Ile Gln Asp Glu Glu Asn Lys Met Leu Leu Leu Glu Ile Leu  
 385 390 395 400  
 His Glu Ile Lys Ser Phe Pro Leu His Phe Asp Glu Asn Ser Phe Phe  
 405 410 415  
 Ala Gly Asp Lys Lys Glu Ala His Lys Leu Lys Glu Asp Phe Arg Leu  
 420 425 430  
 His Phe Arg Asn Ile Ser Arg Ile Met Asp Cys Val Gly Cys Phe Lys  
 435 440 445  
 Cys Arg Leu Trp Gly Lys Leu Gln Thr Gln Gly Leu Gly Thr Ala Leu  
 450 455 460  
 Lys Ile Leu Phe Ser Glu Lys Leu Ile Ala Asn Met Pro Glu Ser Gly  
 465 470 475 480  
 Pro Ser Tyr Glu Phe His Leu Thr Arg Gln Glu Ile Val Ser Leu Phe  
 485 490 495  
 Asn Ala Phe Gly Arg Ile Ser Thr Ser Val Lys Glu Leu Glu Asn Phe  
 500 505 510  
 Arg Asn Leu Leu Gln Asn Ile His \*  
 515 520

&lt;210&gt; 1256

&lt;211&gt; 208

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1256

Met Ser Ala Gly Gly Asp Phe Gly Asn Pro Leu Arg Lys Phe Lys Leu  
 1 5 10 15  
 Val Phe Leu Gly Glu Gln Ser Val Gly Lys Thr Ser Leu Ile Thr Arg  
 20 25 30  
 Phe Met Tyr Asp Ser Phe Asp Asn Thr Tyr Gln Ala Thr Ile Gly Ile  
 35 40 45  
 Asp Phe Leu Ser Lys Thr Met Tyr Leu Glu Asp Arg Thr Val Arg Leu  
 50 55 60  
 Gln Leu Trp Asp Thr Ala Gly Gln Glu Arg Phe Arg Ser Leu Ile Pro  
 65 70 75 80

```

Ser Tyr Ile Arg Asp Ser Thr Val Ala Val Val Val Tyr Asp Ile Thr
      85      90      95
Asn Leu Asn Ser Phe Gln Gln Thr Ser Lys Trp Ile Asp Asp Val Arg
      100      105      110
Thr Glu Arg Gly Ser Asp Val Ile Ile Met Leu Val Gly Asn Lys Thr
      115      120      125
Asp Leu Ala Asp Lys Arg Gln Ile Thr Ile Glu Glu Gly Glu Gln Arg
      130      135      140
Ala Lys Glu Leu Ser Val Met Phe Ile Glu Thr Ser Ala Lys Thr Gly
      145      150      155      160
Tyr Asn Val Lys Gln Leu Phe Arg Arg Val Ala Ser Ala Leu Pro Gly
      165      170      175
Met Glu Asn Val Gln Glu Lys Ser Lys Glu Gly Met Ile Asp Ile Lys
      180      185      190
Leu Asp Lys Pro Gln Glu Pro Pro Ala Ser Glu Gly Gly Cys Ser Cys
      195      200      205      208

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<210> 1257
<211> 1724
<212> PRT
<213> Homo sapiens

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<400> 1257
Met Arg Glu Lys Glu Gln Glu Arg Glu Glu Gln Leu Met Glu Asp Lys
  1      5      10      15
Lys Arg Lys Lys Glu Asp Lys Lys Lys Lys Glu Ala Thr Gln Lys Val
      20      25      30
Thr Glu Gln Lys Thr Lys Val Pro Glu Val Thr Lys Pro Ser Leu Ser
      35      40      45
Gln Pro Thr Ala Ala Ser Pro Ile Gly Ser Ser Pro Ser Pro Pro Val
      50      55      60
Asn Gly Gly Asn Asn Ala Lys Arg Val Ala Val Pro Asn Gly Gln Pro
      65      70      75      80
Pro Ser Ala Ala Arg Tyr Met Pro Arg Glu Val Pro Pro Arg Phe Arg
      85      90      95
Cys Gln Gln Asp His Lys Val Leu Leu Lys Arg Gly Gln Pro Pro Pro
      100      105      110
Pro Ser Cys Met Leu Leu Gly Gly Gly Ala Gly Pro Pro Pro Cys Thr
      115      120      125
Ala Pro Gly Ala Asn Pro Asn Asn Ala Gln Val Thr Gly Ala Leu Leu
      130      135      140
Gln Ser Glu Ser Gly Thr Ala Pro Asp Ser Thr Leu Gly Gly Ala Ala
      145      150      155      160
Ala Ser Asn Tyr Ala Asn Ser Thr Trp Gly Ser Gly Ala Ser Ser Asn
      165      170      175
Asn Gly Thr Ser Pro Asn Pro Ile His Ile Trp Asp Lys Val Ile Val
      180      185      190
Asp Gly Ser Asp Met Glu Glu Trp Pro Cys Ile Ala Ser Lys Asp Thr
      195      200      205
Glu Ser Ser Ser Glu Asn Thr Thr Asp Asn Asn Ser Ala Ser Asn Pro
      210      215      220
Gly Ser Glu Lys Ser Thr Leu Pro Gly Ser Thr Thr Ser Asn Lys Gly
      225      230      235      240
Lys Gly Ser Gln Cys Gln Ser Ala Ser Ser Gly Asn Glu Cys Asn Leu
      245      250      255
Gly Val Trp Lys Ser Asp Pro Lys Ala Lys Ser Val Gln Ser Ser Asn
      260      265      270
Ser Thr Thr Glu Asn Asn Asn Gly Leu Gly Asn Trp Arg Asn Val Ser
      275      280      285

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Gly	Gln	Asp	Arg	Ile	Gly	Pro	Gly	Ser	Gly	Phe	Ser	Asn	Phe	Asn	Pro
290						295					300				
Asn	Ser	Asn	Pro	Ser	Ala	Trp	Pro	Ala	Leu	Val	Gln	Glu	Gly	Thr	Ser
305					310					315					320
Arg	Lys	Gly	Ala	Leu	Glu	Thr	Asp	Asn	Ser	Asn	Ser	Ser	Ala	Gln	Val
				325					330					335	
Ser	Thr	Val	Gly	Gln	Thr	Ser	Arg	Glu	Gln	Gln	Ser	Lys	Met	Glu	Asn
			340					345					350		
Ala	Gly	Val	Asn	Phe	Val	Val	Ser	Gly	Arg	Glu	Gln	Ala	Gln	Ile	His
		355					360					365			
Asn	Thr	Asp	Gly	Pro	Lys	Asn	Gly	Asn	Thr	Asn	Ser	Leu	Asn	Leu	Ser
370						375					380				
Ser	Pro	Asn	Pro	Met	Glu	Asn	Lys	Gly	Met	Pro	Phe	Gly	Met	Gly	Leu
385					390					395					400
Gly	Asn	Thr	Ser	Arg	Ser	Thr	Asp	Ala	Pro	Ser	Gln	Ser	Thr	Gly	Asp
				405				410						415	
Arg	Lys	Thr	Gly	Ser	Val	Gly	Ser	Trp	Gly	Ala	Ala	Arg	Gly	Pro	Ser
			420					425					430		
Gly	Thr	Asp	Thr	Val	Ser	Gly	Gln	Ser	Asn	Ser	Gly	Asn	Asn	Gly	Asn
		435					440					445			
Asn	Gly	Lys	Glu	Arg	Glu	Asp	Ser	Trp	Lys	Gly	Ala	Ser	Val	Gln	Lys
450						455					460				
Ser	Thr	Gly	Ser	Lys	Asn	Asp	Ser	Trp	Asp	Asn	Asn	Asn	Arg	Ser	Thr
465					470					475					480
Gly	Gly	Ser	Trp	Asn	Phe	Gly	Pro	Gln	Asp	Ser	Asn	Asp	Asn	Lys	Trp
				485					490					495	
Gly	Glu	Gly	Asn	Lys	Met	Thr	Ser	Gly	Val	Ser	Gln	Gly	Glu	Trp	Lys
			500					505					510		
Gln	Pro	Thr	Gly	Ser	Asp	Glu	Leu	Lys	Ile	Gly	Glu	Trp	Ser	Gly	Pro
		515					520					525			
Asn	Gln	Pro	Asn	Ser	Ser	Thr	Gly	Ala	Trp	Asp	Asn	Gln	Lys	Gly	His
530						535					540				
Pro	Leu	Pro	Glu	Asn	Gln	Gly	Asn	Ala	Gln	Ala	Pro	Cys	Trp	Gly	Arg
545					550					555					560
Ser	Ser	Ser	Ser	Thr	Gly	Ser	Glu	Val	Gly	Gly	Gln	Ser	Thr	Gly	Ser
				565					570					575	
Asn	His	Lys	Ala	Gly	Ser	Ser	Asp	Ser	His	Asn	Ser	Gly	Arg	Arg	Ser
			580					585					590		
Tyr	Arg	Pro	Thr	His	Pro	Asp	Cys	Gln	Ala	Val	Leu	Gln	Thr	Leu	Leu
		595				600						605			
Ser	Arg	Thr	Asp	Leu	Asp	Pro	Arg	Val	Leu	Ser	Asn	Thr	Gly	Trp	Gly
610						615					620				
Gln	Thr	Gln	Ile	Lys	Gln	Asp	Thr	Val	Trp	Asp	Ile	Glu	Glu	Val	Pro
625					630					635					640
Arg	Pro	Glu	Gly	Lys	Ser	Asp	Lys	Gly	Thr	Glu	Gly	Trp	Glu	Ser	Ala
				645					650					655	
Ala	Thr	Gln	Thr	Lys	Asn	Ser	Gly	Gly	Trp	Gly	Asp	Ala	Pro	Ser	Gln
			660					665				670			
Ser	Asn	Gln	Met	Lys	Ser	Gly	Trp	Gly	Glu	Leu	Ser	Ala	Ser	Thr	Glu
		675					680					685			
Trp	Lys	Asp	Pro	Lys	Asn	Thr	Gly	Gly	Trp	Asn	Asp	Tyr	Lys	Asn	Asn
690						695					700				
Asn	Ser	Ser	Asn	Trp	Gly	Gly	Gly	Arg	Pro	Asp	Glu	Lys	Thr	Pro	Ser
705					710					715					720
Ser	Trp	Asn	Glu	Asn	Pro	Ser	Lys	Asp	Gln	Gly	Trp	Gly	Gly	Gly	Arg
				725					730					735	
Gln	Pro	Asn	Gln	Gly	Trp	Ser	Ser	Gly	Lys	Asn	Gly	Trp	Gly	Glu	Glu
			740					745					750		
Val	Asp	Gln	Thr	Lys	Asn	Ser	Asn	Trp	Glu	Ser	Ser	Ala	Ser	Lys	Pro
		755					760					765			
Val	Ser	Gly	Trp	Gly	Glu	Gly	Gly	Gln	Asn	Glu	Ile	Gly	Thr	Trp	Gly
770						775					780				
Asn	Gly	Gly	Asn	Ala	Ser	Leu	Ala	Ser	Lys	Gly	Gly	Trp	Glu	Asp	Cys
785					790					795					800

Lys Arg Ser Pro Ala Trp Asn Glu Thr Gly Arg Gln Pro Asn Ser Trp  
 805 810 815  
 Asn Lys Gln His Gln Gln Gln Gln Pro Pro Gln Gln Pro Pro Pro Pro  
 820 825 830  
 Gln Pro Glu Ala Ser Gly Ser Trp Gly Gly Pro Pro Pro Pro Pro Pro  
 835 840 845  
 Gly Asn Val Arg Pro Ser Asn Ser Ser Trp Ser Ser Gly Pro Gln Pro  
 850 855 860  
 Ala Thr Pro Lys Asp Glu Glu Pro Ser Gly Trp Glu Glu Pro Ser Pro  
 865 870 875 880  
 Gln Ser Ile Ser Arg Lys Met Asp Ile Asp Asp Gly Thr Ser Ala Trp  
 885 890 895  
 Gly Asp Pro Asn Ser Tyr Asn Tyr Lys Asn Val Asn Leu Trp Asp Lys  
 900 905 910  
 Asn Ser Gln Gly Gly Pro Ala Pro Arg Glu Pro Asn Leu Pro Thr Pro  
 915 920 925  
 Met Thr Ser Lys Ser Ala Ser Asp Ser Lys Ser Met Gln Asp Gly Trp  
 930 935 940  
 Gly Glu Ser Asp Gly Pro Val Thr Gly Ala Arg His Pro Ser Trp Glu  
 945 950 955 960  
 Glu Glu Glu Asp Gly Gly Val Trp Asn Thr Thr Gly Ser Gln Gly Ser  
 965 970 975  
 Ala Ser Ser His Asn Ser Ala Ser Trp Gly Gln Gly Gly Lys Lys Gln  
 980 985 990  
 Met Lys Cys Ser Leu Lys Gly Gly Asn Asn Asp Ser Trp Met Asn Pro  
 995 1000 1005  
 Leu Ala Lys Gln Phe Ser Asn Met Gly Leu Leu Ser Gln Thr Glu Asp  
 1010 1015 1020  
 Asn Pro Ser Ser Lys Met Asp Leu Ser Val Gly Ser Leu Ser Asp Lys  
 1025 1030 1035 1040  
 Lys Phe Asp Val Asp Lys Arg Ala Met Asn Leu Gly Asp Phe Asn Asp  
 1045 1050 1055  
 Ile Met Arg Lys Asp Arg Ser Gly Phe Arg Pro Pro Asn Ser Lys Asp  
 1060 1065 1070  
 Met Gly Thr Thr Asp Ser Gly Pro Tyr Phe Glu Lys Gly Gly Ser His  
 1075 1080 1085  
 Gly Leu Phe Gly Asn Ser Thr Ala Gln Ser Arg Gly Leu His Thr Pro  
 1090 1095 1100  
 Val Gln Pro Leu Asn Ser Ser Pro Ser Leu Arg Ala Gln Val Pro Pro  
 1105 1110 1115 1120  
 Gln Phe Ile Ser Pro Gln Val Ser Ala Ser Met Leu Lys Gln Phe Pro  
 1125 1130 1135  
 Asn Ser Gly Leu Ser Pro Gly Leu Phe Asn Val Gly Pro Gln Leu Ser  
 1140 1145 1150  
 Pro Gln Gln Ile Ala Met Leu Ser Gln Leu Pro Gln Ile Pro Gln Phe  
 1155 1160 1165  
 Gln Leu Ala Cys Gln Leu Leu Leu Gln Gln Gln Gln Gln Gln Gln Leu  
 1170 1175 1180  
 Leu Gln Asn Gln Arg Lys Ile Ser Gln Ala Val Arg Gln Gln Gln Glu  
 1185 1190 1195 1200  
 Gln Gln Leu Ala Arg Met Val Ser Ala Leu Gln Gln Gln Gln Gln Gln  
 1205 1210 1215  
 Gln Gln Arg Gln Pro Gly Met Lys His Ser Pro Ser His Pro Val Gly  
 1220 1225 1230  
 Pro Lys Pro His Leu Asp Asn Met Val Pro Asn Ala Leu Asn Val Gly  
 1235 1240 1245  
 Leu Pro Asp Leu Gln Thr Lys Gly Pro Ile Pro Gly Tyr Gly Ser Gly  
 1250 1255 1260  
 Phe Ser Ser Gly Gly Met Asp Tyr Gly Met Val Gly Gly Lys Glu Ala  
 1265 1270 1275 1280  
 Gly Thr Glu Ser Arg Phe Lys Gln Trp Thr Ser Met Met Glu Gly Leu  
 1285 1290 1295  
 Pro Ser Val Ala Thr Gln Glu Ala Asn Met His Lys Asn Gly Ala Ile  
 1300 1305 1310

Val Ala Pro Gly Lys Thr Arg Gly Gly Ser Pro Tyr Asn Gln Phe Asp  
 1315 1320 1325  
 Ile Ile Pro Gly Asp Thr Leu Gly Gly His Thr Gly Pro Ala Gly Asp  
 1330 1335 1340  
 Ser Trp Leu Pro Ala Lys Ser Pro Pro Thr Asn Lys Ile Gly Ser Lys  
 1345 1350 1355 1360  
 Ser Ser Asn Ala Ser Trp Pro Pro Glu Phe Gln Pro Gly Val Pro Trp  
 1365 1370 1375  
 Lys Gly Ile Gln Asn Ile Asp Pro Glu Ser Asp Pro Tyr Val Thr Pro  
 1380 1385 1390  
 Gly Ser Val Leu Gly Gly Thr Ala Thr Ser Pro Ile Val Asp Thr Asp  
 1395 1400 1405  
 His Gln Leu Leu Arg Asp Asn Thr Thr Gly Ser Asn Ser Ser Leu Asn  
 1410 1415 1420  
 Thr Ser Leu Pro Ser Pro Gly Ala Trp Pro Tyr Ser Ala Ser Asp Asn  
 1425 1430 1435 1440  
 Ser Phe Thr Asn Val His Ser Thr Ser Ala Lys Phe Pro Asp Tyr Lys  
 1445 1450 1455  
 Ser Thr Trp Ser Pro Asp Pro Ile Gly His Asn Pro Thr His Leu Ser  
 1460 1465 1470  
 Asn Lys Met Trp Lys Asn His Ile Ser Ser Arg Asn Thr Thr Pro Leu  
 1475 1480 1485  
 Pro Arg Pro Pro Pro Gly Leu Thr Asn Pro Lys Pro Ser Ser Pro Trp  
 1490 1495 1500  
 Ser Ser Thr Ala Pro Arg Ser Val Arg Gly Trp Gly Thr Gln Asp Ser  
 1505 1510 1515 1520  
 Arg Leu Ala Ser Ala Ser Thr Trp Ser Asp Gly Gly Ser Val Arg Pro  
 1525 1530 1535  
 Ser Tyr Trp Leu Val Leu His Asn Leu Thr Pro Gln Ile Asp Gly Ser  
 1540 1545 1550  
 Thr Leu Arg Thr Ile Cys Met Gln His Gly Pro Leu Leu Thr Phe His  
 1555 1560 1565  
 Leu Asn Leu Thr Gln Gly Thr Ala Leu Ile Arg Tyr Ser Thr Lys Gln  
 1570 1575 1580  
 Glu Ala Ala Lys Ala Gln Thr Ala Leu His Met Cys Val Leu Gly Asn  
 1585 1590 1595 1600  
 Thr Thr Ile Leu Ala Glu Phe Ala Thr Asp Asp Glu Val Ser Arg Phe  
 1605 1610 1615  
 Leu Ala Gln Ala Gln Pro Pro Thr Pro Ala Ala Thr Pro Ser Ala Pro  
 1620 1625 1630  
 Ala Ala Gly Trp Gln Ser Leu Glu Thr Gly Gln Asn Gln Ser Asp Pro  
 1635 1640 1645  
 Val Gly Pro Ala Leu Asn Leu Phe Gly Gly Ser Thr Gly Leu Gly Gln  
 1650 1655 1660  
 Trp Ser Ser Ser Ala Gly Gly Ser Ser Gly Ala Asp Leu Ala Gly Ala  
 1665 1670 1675 1680  
 Ser Leu Trp Gly Pro Pro Asn Tyr Ser Ser Ser Leu Trp Gly Val Pro  
 1685 1690 1695  
 Thr Val Glu Asp Pro His Arg Met Gly Ser Pro Ala Pro Leu Leu Pro  
 1700 1705 1710  
 Gly Asp Leu Leu Gly Gly Gly Ser Asp Ser Ile \*  
 1715 1720 1723

<210> 1258  
 <211> 304  
 <212> PRT  
 <213> Homo sapiens

<400> 1258  
 Met Leu Leu Leu Ser Thr Ala Met Tyr Gly Ala His Ala Pro Leu Leu  
 1 5 10 15

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Ala Leu Cys His Val Asp Gly Arg Val Pro Phe Arg Pro Ser Ser Ala
      20      25      30
Val Leu Leu Thr Glu Leu Thr Lys Leu Leu Leu Cys Ala Phe Ser Leu
      35      40      45
Leu Val Gly Trp Gln Ala Trp Pro Gln Gly Pro Pro Pro Trp Arg Gln
      50      55      60
Ala Ala Pro Phe Ala Leu Ser Ala Leu Leu Tyr Gly Ala Asn Asn Asn
      65      70      75      80
Leu Val Ile Tyr Leu Gln Arg Tyr Met Asp Pro Ser Thr Tyr Gln Val
      85      90      95
Leu Ser Asn Leu Lys Ile Gly Ser Thr Ala Val Leu Tyr Cys Leu Cys
      100     105     110
Leu Arg His Arg Leu Ser Val Arg Gln Gly Leu Ala Leu Leu Leu Leu
      115     120     125
Met Ala Ala Gly Ala Cys Tyr Ala Ala Gly Gly Leu Gln Val Pro Gly
      130     135     140
Asn Thr Leu Pro Ser Pro Pro Ala Ala Ala Ser Pro Met Pro
      145     150     155     160
Leu His Ile Thr Pro Leu Gly Leu Leu Leu Ile Leu Tyr Cys Leu
      165     170     175
Ile Ser Gly Leu Ser Ser Val Tyr Thr Glu Leu Leu Met Lys Arg Gln
      180     185     190
Arg Leu Pro Leu Ala Leu Gln Asn Leu Phe Leu Tyr Thr Phe Gly Val
      195     200     205
Leu Leu Asn Leu Gly Leu His Ala Gly Gly Gly Ser Gly Pro Gly Leu
      210     215     220
Leu Glu Gly Phe Ser Gly Trp Ala Ala Leu Val Val Leu Ser Gln Ala
      225     230     235     240
Leu Asn Gly Leu Leu Met Ser Ala Val Met Lys His Gly Ser Ser Ile
      245     250     255
Thr Arg Leu Phe Val Val Ser Cys Ser Leu Val Val Asn Ala Val Leu
      260     265     270
Ser Ala Val Leu Leu Arg Leu Gln Leu Thr Ala Ala Phe Phe Leu Ala
      275     280     285
Thr Leu Leu Ile Gly Leu Ala Met Arg Leu Tyr Tyr Gly Ser Arg *
      290     295     300     303

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<210> 1259  
 <211> 202  
 <212> PRT  
 <213> Homo sapiens

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      <400> 1259
Met Lys Trp Val Trp Ala Leu Leu Leu Leu Ala Ala Leu Gly Ser Gly
  1      5      10      15
Arg Ala Glu Arg Asp Cys Arg Val Ser Ser Phe Arg Val Lys Glu Asn
      20      25      30
Phe Asp Lys Ala Arg Phe Ser Gly Thr Trp Tyr Ala Met Ala Lys Lys
      35      40      45
Asp Pro Glu Gly Leu Phe Leu Gln Asp Asn Ile Val Ala Glu Phe Ser
      50      55      60
Val Asp Glu Thr Gly Gln Met Ser Ala Thr Ala Lys Gly Arg Val Arg
      65      70      75      80
Leu Leu Asn Asn Trp Asp Val Cys Ala Asp Met Val Gly Thr Phe Thr
      85      90      95
Asp Thr Glu Asp Pro Ala Lys Phe Lys Met Lys Tyr Trp Gly Val Ala
      100     105     110
Ser Phe Leu Gln Lys Gly Asn Asp Asp His Trp Ile Val Asp Thr Asp
      115     120     125
Tyr Asp Thr Tyr Ala Val Gln Tyr Ser Cys Arg Leu Leu Asn Leu Asp
      130     135     140

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Gly Thr Cys Ala Asp Ser Tyr Ser Phe Val Phe Ser Arg Asp Pro Asn  
 145 150 155 160  
 Gly Leu Pro Pro Glu Ala Gln Lys Ile Val Arg Gln Arg Gln Glu Glu  
 165 170 175  
 Leu Cys Leu Ala Arg Gln Tyr Arg Leu Ile Val His Asn Gly Tyr Cys  
 180 185 190  
 Asp Gly Arg Ser Glu Arg Asn Leu Leu \*  
 195 200 201

<210> 1260  
 <211> 215  
 <212> PRT  
 <213> Homo sapiens

<400> 1260  
 Met Asn Cys Lys Glu Gly Thr Asp Ser Ser Cys Gly Cys Arg Gly Asn  
 1 5 10 15  
 Asp Glu Lys Lys Met Leu Lys Cys Val Val Val Gly Asp Gly Ala Val  
 20 25 30  
 Gly Lys Thr Cys Leu Leu Met Ser Tyr Ala Asn Asp Ala Phe Pro Glu  
 35 40 45  
 Glu Tyr Val Pro Thr Val Phe Asp His Tyr Ala Val Thr Val Thr Val  
 50 55 60  
 Gly Gly Lys Gln His Leu Leu Gly Leu Tyr Asp Thr Ala Gly Gln Glu  
 65 70 75 80  
 Asp Tyr Asn Gln Leu Arg Pro Leu Ser Tyr Pro Asn Thr Asp Val Phe  
 85 90 95  
 Leu Ile Cys Phe Ser Val Val Asn Pro Ala Ser Tyr His Asn Val Gln  
 100 105 110  
 Glu Glu Trp Val Pro Glu Leu Lys Asp Cys Met Pro His Val Pro Tyr  
 115 120 125  
 Val Leu Ile Gly Thr Gln Ile Asp Leu Arg Asp Asp Pro Lys Thr Leu  
 130 135 140  
 Ala Arg Leu Leu Tyr Met Lys Glu Lys Pro Leu Thr Tyr Glu His Gly  
 145 150 155 160  
 Val Lys Leu Ala Lys Ala Ile Gly Ala Gln Cys Tyr Leu Glu Cys Ser  
 165 170 175  
 Ala Leu Thr Gln Lys Gly Leu Lys Ala Val Phe Asp Glu Ala Ile Leu  
 180 185 190  
 Thr Ile Phe His Pro Lys Lys Lys Lys Arg Cys Ser Glu Gly His  
 195 200 205  
 Ser Cys Cys Ser Ile Ile \*  
 210 214

<210> 1261  
 <211> 224  
 <212> PRT  
 <213> Homo sapiens

<400> 1261  
 Met Gln Leu Lys Pro Met Glu Ile Asn Pro Glu Met Leu Asn Lys Val  
 1 5 10 15  
 Leu Ser Arg Leu Gly Val Ala Gly Gln Trp Arg Phe Val Asp Val Leu  
 20 25 30  
 Gly Leu Glu Glu Glu Ser Leu Gly Ser Val Pro Ala Pro Ala Cys Ala  
 35 40 45  
 Leu Leu Leu Leu Phe Pro Leu Thr Ala Gln His Glu Asn Phe Arg Lys  
 50 55 60

Lys Gln Ile Glu Glu Leu Lys Gly Gln Glu Val Ser Pro Lys Val Tyr  
 65 70 75 80  
 Phe Met Lys Gln Thr Ile Gly Asn Ser Cys Gly Thr Ile Gly Leu Ile  
 85 90 95  
 His Ala Val Ala Asn Asn Gln Asp Lys Leu Gly Phe Glu Asp Gly Ser  
 100 105 110  
 Val Leu Lys Gln Phe Leu Ser Glu Thr Glu Lys Met Ser Pro Glu Ala  
 115 120 125  
 Arg Ala Lys Cys Phe Glu Lys Asn Glu Ala Ile Gln Ala Ala His Asp  
 130 135 140  
 Ala Val Ala Gln Glu Gly Gln Cys Arg Val Asp Asp Lys Val Asn Phe  
 145 150 155 160  
 His Phe Ile Leu Phe Asn Asn Val Asp Gly His Leu Tyr Glu Leu Asp  
 165 170 175  
 Gly Arg Met Pro Phe Pro Val Asn His Gly Ala Ser Ser Glu Asp Thr  
 180 185 190  
 Leu Leu Lys Asp Ala Ala Lys Val Cys Arg Glu Phe Thr Glu Arg Glu  
 195 200 205  
 Gln Gly Glu Val Arg Phe Ser Ala Val Ala Leu Cys Lys Ala Ala \*  
 210 215 220 223

<210> 1262  
 <211> 371  
 <212> PRT  
 <213> Homo sapiens

<400> 1262  
 Met Leu Pro Arg Arg Leu Leu Ala Ala Trp Leu Ala Gly Thr Arg Gly  
 1 5 10 15  
 Gly Gly Leu Leu Ala Leu Leu Ala Asn Gln Cys Arg Phe Val Thr Gly  
 20 25 30  
 Leu Arg Val Arg Arg Ala Gln Gln Ile Ala Gln Leu Tyr Gly Arg Leu  
 35 40 45  
 Tyr Ser Glu Ser Ser Arg Arg Val Leu Leu Gly Arg Leu Trp Arg Arg  
 50 55 60  
 Leu His Gly Arg Pro Gly His Ala Ser Ala Leu Met Ala Ala Leu Ala  
 65 70 75 80  
 Gly Val Phe Val Trp Asp Glu Glu Arg Ile Gln Glu Glu Glu Leu Gln  
 85 90 95  
 Arg Ser Ile Asn Glu Met Lys Arg Leu Glu Glu Met Ser Asn Met Phe  
 100 105 110  
 Gln Ser Ser Gly Val Gln His His Pro Pro Glu Pro Lys Ala Gln Thr  
 115 120 125  
 Glu Gly Asn Glu Asp Ser Glu Gly Lys Glu Gln Arg Trp Glu Met Val  
 130 135 140  
 Met Asp Lys Lys His Phe Lys Leu Trp Arg Arg Pro Ile Thr Gly Thr  
 145 150 155 160  
 His Leu Tyr Gln Tyr Arg Val Phe Gly Thr Tyr Thr Asp Val Thr Pro  
 165 170 175  
 Arg Gln Phe Phe Asn Val Gln Leu Asp Thr Glu Tyr Arg Lys Lys Trp  
 180 185 190  
 Asp Ala Leu Val Ile Lys Leu Glu Val Ile Glu Arg Asp Val Val Ser  
 195 200 205  
 Gly Ser Glu Val Leu His Trp Val Thr His Phe Pro Tyr Pro Met Tyr  
 210 215 220  
 Ser Arg Asp Tyr Val Tyr Val Arg Arg Tyr Ser Val Asp Gln Glu Asn  
 225 230 235 240  
 Asn Met Met Val Leu Val Ser Arg Ala Val Glu His Pro Ser Val Pro  
 245 250 255  
 Glu Ser Pro Glu Phe Val Arg Val Arg Ser Tyr Glu Ser Gln Met Val  
 260 265 270

```

Ile Arg Pro His Lys Ser Phe Asp Glu Asn Gly Phe Asp Tyr Leu Leu
    275          280          285
Thr Tyr Ser Asp Asn Pro Gln Thr Val Phe Pro Arg Tyr Cys Val Ser
    290          295          300
Trp Met Val Ser Ser Gly Met Pro Asp Phe Leu Glu Lys Leu His Met
    305          310          315          320
Ala Thr Leu Lys Ala Lys Asn Met Glu Ile Lys Val Lys Asp Tyr Ile
    325          330          335
Ser Ala Lys Pro Leu Glu Met Ser Ser Glu Ala Lys Ala Thr Ser Gln
    340          345          350
Ser Ser Glu Arg Lys Asn Glu Gly Ser Cys Gly Pro Ala Arg Ile Glu
    355          360          365
Tyr Ala *
    370

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<210> 1263
<211> 490
<212> PRT
<213> Homo sapiens

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<400> 1263
Met Ser Phe Arg Lys Val Val Arg Gln Ser Lys Phe Arg His Val Phe
  1          5          10          15
Gly Gln Pro Val Lys Asn Asp Gln Cys Tyr Glu Asp Ile Arg Val Ser
    20          25          30
Arg Val Thr Trp Asp Ser Thr Phe Cys Ala Val Asn Pro Lys Phe Leu
    35          40          45
Ala Val Ile Val Glu Ala Ser Gly Gly Gly Ala Phe Leu Val Leu Pro
    50          55          60
Leu Ser Lys Thr Gly Arg Ile Asp Lys Ala Tyr Pro Thr Val Cys Gly
    65          70          75          80
His Thr Gly Pro Val Leu Asp Ile Asp Trp Cys Pro His Asn Asp Glu
    85          90          95
Val Ile Ala Ser Gly Ser Glu Asp Cys Thr Val Met Val Trp Gln Ile
    100          105          110
Pro Glu Asn Gly Leu Thr Ser Pro Leu Thr Glu Pro Val Val Val Leu
    115          120          125
Glu Gly His Thr Lys Arg Val Gly Ile Ile Ala Trp His Pro Thr Ala
    130          135          140
Arg Asn Val Leu Leu Ser Ala Gly Cys Asp Asn Val Val Leu Ile Trp
    145          150          155          160
Asn Val Gly Thr Ala Glu Glu Leu Tyr Arg Leu Asp Ser Leu His Pro
    165          170          175
Asp Leu Ile Tyr Asn Val Ser Trp Asn His Asn Gly Ser Leu Phe Cys
    180          185          190
Ser Ala Cys Lys Asp Lys Ser Val Arg Ile Ile Asp Pro Arg Arg Gly
    195          200          205
Thr Leu Val Ala Glu Arg Glu Lys Ala His Glu Gly Ala Arg Pro Met
    210          215          220
Arg Ala Ile Phe Leu Ala Asp Gly Lys Val Phe Thr Thr Gly Phe Ser
    225          230          235          240
Arg Met Ser Glu Arg Gln Leu Ala Leu Trp Asp Pro Glu Asn Leu Glu
    245          250          255
Glu Pro Met Ala Leu Gln Glu Leu Asp Ser Ser Asn Gly Ala Leu Leu
    260          265          270
Pro Phe Tyr Asp Pro Asp Thr Ser Val Val Tyr Val Cys Gly Lys Gly
    275          280          285
Asp Ser Ser Ile Arg Tyr Phe Glu Ile Thr Glu Glu Pro Pro Tyr Ile
    290          295          300
His Phe Leu Asn Thr Phe Thr Ser Lys Glu Pro Gln Arg Gly Met Gly
    305          310          315          320

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Ser Met Pro Lys Arg Gly Leu Glu Val Ser Lys Cys Glu Ile Ala Arg
      325      330      335
Phe Tyr Lys Leu His Glu Arg Lys Cys Glu Pro Ile Val Met Thr Val
      340      345      350
Pro Arg Lys Ser Asp Leu Phe Gln Asp Asp Leu Tyr Pro Asp Thr Ala
      355      360      365
Gly Pro Glu Ala Ala Leu Glu Ala Glu Glu Trp Val Ser Gly Arg Asp
      370      375      380
Ala Asp Pro Ile Leu Ile Ser Leu Arg Glu Ala Tyr Val Pro Ser Lys
      385      390      395      400
Gln Arg Asp Leu Lys Ile Ser Arg Arg Asn Val Leu Ser Asp Ser Arg
      405      410      415
Pro Ala Met Ala Pro Gly Ser Ser His Leu Gly Ala Pro Ala Ser Thr
      420      425      430
Thr Thr Ala Ala Asp Ala Thr Pro Ser Gly Ser Leu Ala Arg Ala Gly
      435      440      445
Glu Ala Gly Lys Leu Glu Glu Val Met Gln Glu Leu Arg Ala Leu Arg
      450      455      460
Ala Leu Val Lys Glu Gln Gly Asp Arg Ile Cys Arg Leu Glu Glu Gln
      465      470      475      480
Leu Gly Arg Met Glu Asn Gly Asp Ala *
      485      489

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<210> 1264  
 <211> 190  
 <212> PRT  
 <213> Homo sapiens

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<400> 1264
Met Gly Thr Ala Gly Ala Met Gln Leu Cys Trp Val Ile Leu Gly Phe
  1      5      10      15
Leu Leu Phe Arg Gly His Asn Ser Gln Pro Thr Met Thr Gln Thr Ser
      20      25      30
Ser Ser Gln Gly Gly Leu Gly Gly Leu Ser Leu Thr Thr Glu Pro Val
      35      40      45
Ser Ser Asn Pro Gly Tyr Ile Pro Ser Ser Glu Ala Asn Arg Pro Ser
      50      55      60
His Leu Ser Ser Thr Gly Thr Pro Asp Thr Phe Gln Thr Val Pro Pro
      65      70      75      80
Asn Ser Thr Thr Met Ser Leu Ser Met Arg Glu Asp Ala Thr Ile Leu
      85      90      95
Pro Ser Pro Thr Ser Glu Thr Val Leu Thr Val Ala Ala Phe Gly Val
      100      105      110
Ile Ser Phe Ile Val Ile Leu Val Val Val Val Ile Ile Leu Val Gly
      115      120      125
Val Val Ser Leu Arg Phe Lys Cys Arg Lys Ser Lys Glu Ser Glu Asp
      130      135      140
Pro Gln Lys Pro Gly Ser Ser Gly Leu Ser Glu Ser Cys Ser Thr Ala
      145      150      155      160
Asn Gly Glu Lys Asp Ser Ile Thr Leu Ile Ser Met Lys Asn Ile Asn
      165      170      175
Met Asn Asn Gly Lys Gln Ser Leu Ser Ala Glu Lys Ile *
      180      185      189

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<210> 1265  
 <211> 206  
 <212> PRT  
 <213> Homo sapiens

<400> 1265  
 Met Gly Thr Ala Gly Ala Met Gln Leu Cys Trp Val Ile Leu Gly Phe  
 1 5 10 15  
 Leu Leu Phe Arg Gly His Asn Ser Gln Pro Thr Met Thr Gln Thr Ser  
 20 25 30  
 Ser Ser Gln Gly Gly Leu Gly Gly Leu Ser Leu Thr Thr Glu Pro Val  
 35 40 45  
 Ser Ser Asn Pro Gly Tyr Ile Pro Ser Ser Glu Ala Asn Arg Pro Ser  
 50 55 60  
 His Leu Ser Ser Thr Gly Thr Pro Gly Ala Gly Val Pro Ser Ser Gly  
 65 70 75 80  
 Arg Asp Gly Gly Thr Ser Arg Asp Thr Phe Gln Thr Val Pro Pro Asn  
 85 90 95  
 Ser Thr Thr Met Ser Leu Ser Met Arg Glu Asp Ala Thr Ile Leu Pro  
 100 105 110  
 Ser Pro Thr Ser Glu Thr Val Leu Thr Val Ala Ala Phe Gly Val Ile  
 115 120 125  
 Ser Phe Ile Val Ile Leu Val Val Val Val Ile Ile Leu Val Gly Val  
 130 135 140  
 Val Ser Leu Arg Phe Lys Cys Arg Lys Ser Lys Glu Ser Glu Asp Pro  
 145 150 155 160  
 Gln Lys Pro Gly Ser Ser Gly Leu Ser Glu Ser Cys Ser Thr Ala Asn  
 165 170 175  
 Gly Glu Lys Asp Ser Ile Thr Leu Ile Ser Met Lys Asn Ile Asn Met  
 180 185 190  
 Asn Asn Gly Lys Gln Ser Leu Ser Ala Glu Lys Val Leu \*  
 195 200 205

<210> 1266  
 <211> 930  
 <212> PRT  
 <213> Homo sapiens

<400> 1266  
 Met Glu Tyr Glu Arg Arg Gly Gly Arg Gly Asp Arg Thr Gly Arg Tyr  
 1 5 10 15  
 Gly Ala Thr Asp Arg Ser Gln Asp Asp Gly Gly Glu Asn Arg Ser Arg  
 20 25 30  
 Asp His Asp Tyr Arg Asp Met Asp Tyr Arg Ser Tyr Pro Arg Glu Tyr  
 35 40 45  
 Gly Ser Gln Glu Gly Lys His Asp Tyr Asp Asp Ser Ser Glu Glu Gln  
 50 55 60  
 Ser Ala Glu Asp Ser Tyr Glu Ala Ser Pro Gly Ser Glu Thr Gln Arg  
 65 70 75 80  
 Arg Arg Arg Arg Arg His Arg His Ser Pro Thr Gly Pro Pro Gly Phe  
 85 90 95  
 Pro Arg Asp Gly Asp Tyr Arg Asp Gln Asp Tyr Arg Thr Glu Gln Gly  
 100 105 110  
 Glu Glu Glu Glu Glu Glu Glu Asp Glu Glu Glu Glu Lys Ala Ser  
 115 120 125  
 Asn Ile Val Met Leu Arg Met Leu Pro Gln Ala Ala Thr Glu Asp Asp  
 130 135 140  
 Ile Arg Gly Gln Leu Gln Ser His Gly Val Gln Ala Arg Glu Val Arg  
 145 150 155 160  
 Leu Met Arg Asn Lys Ser Ser Gly Gln Ser Arg Gly Phe Ala Phe Val  
 165 170 175  
 Glu Phe Ser His Leu Gln Asp Ala Thr Arg Trp Met Glu Ala Asn Gln  
 180 185 190  
 His Ser Leu Asn Ile Leu Gly Gln Lys Val Ser Met His Tyr Ser Asp  
 195 200 205

Pro Lys Pro Lys Ile Asn Glu Asp Trp Leu Cys Asn Lys Cys Gly Val  
 210 215 220  
 Gln Asn Phe Lys Arg Arg Glu Lys Cys Phe Lys Cys Gly Val Pro Lys  
 225 230 235 240  
 Ser Glu Ala Glu Gln Lys Leu Pro Leu Gly Thr Arg Leu Asp Gln Gln  
 245 250 255  
 Thr Leu Pro Leu Gly Gly Arg Glu Leu Ser Gln Gly Leu Leu Pro Leu  
 260 265 270  
 Pro Gln Pro Tyr Gln Ala Gln Gly Val Leu Ala Ser Gln Ala Leu Ser  
 275 280 285  
 Gln Gly Ser Glu Pro Ser Ser Glu Asn Ala Asn Asp Thr Ile Ile Leu  
 290 295 300  
 Arg Asn Leu Asn Pro His Ser Thr Met Asp Ser Ile Leu Gly Ala Leu  
 305 310 315 320  
 Ala Pro Tyr Ala Val Leu Ser Ser Ser Asn Val Arg Val Ile Lys Asp  
 325 330 335  
 Lys Gln Thr Gln Leu Asn Arg Gly Phe Ala Phe Ile Gln Leu Ser Thr  
 340 345 350  
 Ile Glu Ala Ala Gln Leu Leu Gln Ile Leu Gln Ala Leu His Pro Pro  
 355 360 365  
 Leu Thr Ile Asp Gly Lys Thr Ile Asn Val Glu Phe Ala Lys Gly Ser  
 370 375 380  
 Lys Arg Asp Met Ala Ser Asn Glu Gly Ser Arg Ile Ser Ala Ala Ser  
 385 390 395 400  
 Val Ala Ser Thr Ala Ile Ala Ala Ala Gln Trp Ala Ile Ser Gln Ala  
 405 410 415  
 Ser Gln Gly Gly Glu Gly Thr Trp Ala Thr Ser Glu Glu Pro Pro Val  
 420 425 430  
 Asp Tyr Ser Tyr Tyr Gln Gln Asp Glu Gly Tyr Gly Asn Ser Gln Gly  
 435 440 445  
 Thr Glu Ser Ser Leu Tyr Ala His Gly Tyr Leu Lys Gly Thr Lys Gly  
 450 455 460  
 Pro Gly Ile Thr Gly Thr Lys Gly Asp Pro Thr Gly Ala Gly Pro Glu  
 465 470 475 480  
 Ala Ser Leu Glu Pro Gly Ala Asp Ser Val Ser Met Gln Ala Phe Ser  
 485 490 495  
 Arg Pro Gln Pro Gly Ala Ala Pro Gly Ile Tyr Gln Gln Ser Ala Glu  
 500 505 510  
 Ala Ser Ser Ser Gln Gly Thr Ala Ala Asn Ser Gln Ser Tyr Thr Ile  
 515 520 525  
 Met Ser Pro Ala Val Leu Lys Ser Glu Leu Gln Ser Pro Thr His Pro  
 530 535 540  
 Ser Ser Ala Leu Pro Pro Ala Thr Ser Pro Thr Ala Gln Glu Ser Tyr  
 545 550 555 560  
 Ser Gln Tyr Pro Val Pro Asp Val Ser Thr Tyr Gln Tyr Asp Glu Thr  
 565 570 575  
 Ser Gly Tyr Tyr Tyr Asp Pro Gln Thr Gly Leu Tyr Tyr Asp Pro Asn  
 580 585 590  
 Ser Gln Tyr Tyr Tyr Asn Ala Gln Ser Gln Gln Tyr Leu Tyr Trp Asp  
 595 600 605  
 Gly Glu Arg Arg Thr Tyr Val Pro Ala Leu Glu Gln Ser Ala Asp Gly  
 610 615 620  
 His Lys Glu Thr Gly Ala Pro Ser Lys Glu Gly Lys Glu Lys Lys Glu  
 625 630 635 640  
 Lys His Lys Thr Lys Thr Ala Gln Gln Ile Ala Lys Asp Met Glu Arg  
 645 650 655  
 Trp Ala Arg Ser Leu Asn Lys Gln Lys Glu Asn Phe Lys Asn Ser Phe  
 660 665 670  
 Gln Pro Ile Ser Ser Leu Arg Asp Glu Arg Arg Glu Ser Ala Thr  
 675 680 685  
 Ala Asp Ala Gly Tyr Ala Ile Leu Glu Lys Lys Gly Ala Leu Ala Glu  
 690 695 700  
 Arg Gln His Thr Ser Met Asp Leu Pro Lys Leu Ala Ser Asp Asp Arg  
 705 710 715 720

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<210> 1267
<211> 420
<212> PRT
<213> Homo sapiens
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<400> 1267																
Arg 1	Pro	Arg	Asn	Arg 5	Pro	Gly	Ile	Pro	Gly 10	Ser	Thr	His	Ala	Ser 15	Ala	
Pro	Ser	Phe	Leu 20	Asn	Thr	Gly	Leu	Gly 25	Pro	Thr	Ala	Leu	Gly 30	Val	Leu	
Gly	Gly	Ala 35	Gly	Ala	Gly	Leu	Met 40	Ser	Asn	Pro	Ser	Pro 45	Gln	Val	Pro	
Glu 50	Glu	Glu	Ala	Ser	Thr	Ser 55	Val	Cys	Arg	Pro	Lys 60	Ser	Ser	Met	Ala	
Ser 65	Thr	Ser	Arg	Arg 70	Gln	Arg	Arg	Glu	Arg 75	Arg	Phe	Arg	Arg	Tyr 80	Leu	
Ser	Ala	Gly	Arg	Leu 85	Val	Arg	Ala	Gln	Ala 90	Leu	Leu	Gln	Arg	His 95	Pro	
Gly	Leu	Asp 100	Val	Asp	Ala	Gly	Gln	Pro 105	Pro	Pro	Leu	His 110	Arg	Ala	Cys	
Ala 115	Arg	His	Asp	Ala	Pro	Ala	Leu 120	Cys	Leu	Leu	Leu	Arg 125	Leu	Gly	Ala	
Asp 130	Pro	Ala	His	Gln	Asp	Arg 135	His	Gly	Asp	Thr 140	Ala	Leu	His	Ala	Ala	
Ala 145	Arg	Gln	Gly	Pro	Asp 150	Ala	Tyr	Thr	Asp 155	Phe	Phe	Leu	Pro	Leu	Leu 160	
Ser	Arg	Cys	Pro	Ser 165	Ala	Met	Gly	Ile	Lys 170	Asn	Lys	Asp	Gly	Glu 175	Thr	
Pro	Gly	Gln	Ile 180	Leu	Gly	Trp	Gly	Pro 185	Pro	Trp	Asp	Ser 190	Ala	Glu	Glu	
Glu	Glu	Glu 195	Asp	Asp	Ala	Ser	Lys 200	Glu	Arg	Glu	Trp 205	Arg	Gln	Lys	Leu	

Gln Gly Glu Leu Glu Asp Glu Trp Gln Glu Val Met Gly Arg Phe Glu  
 210 215 220  
 Gly Asp Ala Ser His Glu Thr Gln Glu Pro Glu Ser Phe Ser Ala Trp  
 225 230 235 240  
 Ser Asp Arg Leu Ala Arg Glu His Ala Gln Lys Cys Gln Gln Gln Gln  
 245 250 255  
 Arg Glu Ala Glu Gly Ser Cys Arg Pro Pro Arg Ala Glu Gly Ser Ser  
 260 265 270  
 Gln Ser Trp Arg Gln Gln Glu Glu Gln Arg Leu Phe Arg Glu Arg  
 275 280 285  
 Ala Arg Ala Lys Glu Glu Glu Leu Arg Glu Ser Arg Ala Arg Arg Ala  
 290 295 300  
 Gln Glu Ala Leu Gly Asp Arg Glu Pro Lys Pro Thr Arg Ala Gly Pro  
 305 310 315 320  
 Arg Glu Glu His Pro Arg Gly Ala Gly Arg Gly Ser Leu Trp Arg Phe  
 325 330 335  
 Gly Asp Val Pro Trp Pro Cys Pro Gly Gly Gly Asp Pro Glu Ala Met  
 340 345 350  
 Ala Ala Ala Leu Val Ala Arg Gly Pro Pro Leu Glu Glu Gln Gly Ala  
 355 360 365  
 Leu Arg Arg Tyr Leu Arg Val Gln Gln Val Arg Trp His Pro Asp Arg  
 370 375 380  
 Phe Leu Gln Arg Phe Arg Ser Gln Ile Glu Thr Trp Glu Leu Gly Arg  
 385 390 395 400  
 Val Met Gly Ala Val Thr Ala Leu Ser Gln Ala Leu Asn Arg His Ala  
 405 410 415  
 Glu Ala Leu Lys  
 420

<210> 1268  
 <211> 9  
 <212> PRT  
 <213> Homo sapiens

<400> 1268  
 Ala Gly Gly Met Ala Glu Pro Thr Ser'  
 1 5 9

<210> 1269  
 <211> 4  
 <212> PRT  
 <213> Homo sapiens

<400> 1269  
 Ser Gln Arg Arg  
 1 4

<210> 1270  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 1270  
 Met Ala Phe Met Lys Lys Tyr Leu Leu Pro Ile Leu Gly Leu Phe Met  
 1 5 10 15



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<210> 1271
<211> 345
<212> PRT
<213> Homo sapiens
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<210> 1272

<211> 241  
 <212> PRT  
 <213> Homo sapiens

<400> 1272  
 Met Leu Leu Gln Ser Gln Thr Met Gly Val Ser His Ser Phe Thr Pro  
 1 5 10 15  
 Lys Gly Ile Thr Ile Pro Gln Arg Glu Lys Pro Gly His Met Tyr Gln  
 20 25 30  
 Asn Glu Asp Tyr Leu Gln Asn Gly Leu Pro Thr Glu Thr Thr Val Leu  
 35 40 45  
 Gly Thr Val Gln Ile Leu Cys Cys Leu Leu Ile Ser Ser Leu Gly Ala  
 50 55 60  
 Ile Leu Val Phe Ala Pro Tyr Pro Ser His Phe Asn Pro Ala Ile Ser  
 65 70 75 80  
 Thr Thr Leu Met Ser Gly Tyr Pro Phe Leu Gly Ala Leu Cys Phe Gly  
 85 90 95  
 Ile Thr Gly Ser Leu Ser Ile Ile Ser Gly Lys Gln Ser Thr Lys Pro  
 100 105 110  
 Phe Asp Leu Ser Ser Leu Thr Ser Asn Ala Val Ser Ser Val Thr Ala  
 115 120 125  
 Gly Ala Gly Leu Phe Leu Leu Ala Asp Ser Met Val Ala Leu Arg Thr  
 130 135 140  
 Ala Ser Gln His Cys Gly Ser Glu Met Asp Tyr Leu Ser Ser Leu Pro  
 145 150 155 160  
 Tyr Ser Glu Tyr Tyr Tyr Pro Ile Tyr Glu Ile Lys Asp Cys Leu Leu  
 165 170 175  
 Thr Ser Val Ser Leu Thr Gly Val Leu Val Val Met Leu Ile Phe Thr  
 180 185 190  
 Val Leu Glu Leu Leu Leu Ala Ala Tyr Ser Ser Val Phe Trp Trp Lys  
 195 200 205  
 Gln Leu Tyr Ser Asn Asn Pro Gly Ser Ser Phe Ser Ser Thr Gln Ser  
 210 215 220  
 Gln Asp His Ile Gln Gln Val Lys Lys Ser Ser Ser Arg Ser Trp Ile  
 225 230 235 240  
 \*

<210> 1273  
 <211> 96  
 <212> PRT  
 <213> Homo sapiens

<400> 1273  
 Met Glu Asn Leu Lys Ser Gly Val Tyr Pro Leu Lys Glu Ala Ser Gly  
 1 5 10 15  
 Cys Pro Gly Ala Asp Arg Asn Leu Leu Val Tyr Ser Phe Tyr Glu Lys  
 20 25 30  
 Gly Pro Leu Thr Phe Arg Asp Val Ala Ile Glu Phe Ser Leu Glu Glu  
 35 40 45  
 Trp Gln Cys Leu Asp Thr Ala Gln Gln Asp Leu Tyr Arg Lys Val Met  
 50 55 60  
 Leu Glu Asn Tyr Arg Asn Leu Val Phe Leu Gly Glu Asn Asn Phe Asn  
 65 70 75 80  
 Thr Lys Ser Leu Ile Tyr Pro Lys Val Phe Ile Ser Leu Phe Ser \*  
 85 90 95

<210> 1274

<211> 228  
 <212> PRT  
 <213> Homo sapiens

<400> 1274  
 Met Ser Val Val Pro Pro Asn Arg Ser Gln Thr Gly Trp Pro Arg Gly  
 1 5 10 15  
 Val Thr Gln Phe Gly Asn Lys Tyr Ile Gln Gln Thr Lys Pro Leu Thr  
 20 25 30  
 Leu Glu Arg Thr Ile Asn Leu Tyr Pro Leu Thr Asn Tyr Thr Phe Gly  
 35 40 45  
 Thr Lys Glu Pro Leu Tyr Glu Lys Asp Ser Ser Val Ala Ala Arg Phe  
 50 55 60  
 Gln Arg Met Arg Glu Glu Phe Asp Lys Ile Gly Met Arg Arg Thr Val  
 65 70 75 80  
 Glu Gly Val Leu Ile Val His Glu His Arg Leu Pro His Val Leu Leu  
 85 90 95  
 Leu Gln Leu Gly Thr Thr Phe Phe Lys Leu Pro Gly Gly Glu Leu Asn  
 100 105 110  
 Pro Gly Glu Asp Glu Val Glu Gly Leu Lys Arg Leu Met Thr Glu Ile  
 115 120 125  
 Leu Gly Arg Gln Asp Gly Val Leu Gln Asp Trp Val Ile Asp Asp Cys  
 130 135 140  
 Ile Gly Asn Trp Trp Arg Pro Asn Phe Glu Pro Pro Gln Tyr Pro Tyr  
 145 150 155 160  
 Ile Pro Ala His Ile Thr Lys Pro Lys Glu His Lys Lys Leu Phe Leu  
 165 170 175  
 Val Gln Leu Gln Glu Lys Ala Leu Phe Ala Val Pro Lys Asn Tyr Lys  
 180 185 190  
 Leu Val Ala Ala Pro Leu Phe Glu Leu Tyr Asp Asn Ala Pro Gly Tyr  
 195 200 205  
 Gly Pro Ile Ile Ser Ser Leu Pro Gln Leu Leu Ser Arg Phe Asn Phe  
 210 215 220  
 Ile Tyr Asn \*  
 225 227

<210> 1275  
 <211> 141  
 <212> PRT  
 <213> Homo sapiens

<400> 1275  
 Met Phe Phe Thr Ile Ser Arg Lys Asn Met Ser Gln Lys Leu Ser Leu  
 1 5 10 15  
 Leu Leu Leu Val Phe Gly Leu Ile Trp Gly Leu Met Leu Leu His Tyr  
 20 25 30  
 Thr Phe Gln Gln Pro Arg His Gln Ser Ser Val Lys Leu Arg Glu Gln  
 35 40 45  
 Ile Leu Asp Leu Ser Lys Arg Tyr Val Lys Ala Leu Ala Glu Glu Asn  
 50 55 60  
 Lys Asn Thr Val Asp Val Glu Asn Gly Ala Ser Met Ala Gly Tyr Ala  
 65 70 75 80  
 Asp Leu Lys Arg Thr Ile Ala Val Leu Leu Asp Asp Ile Leu Gln Arg  
 85 90 95  
 Leu Val Lys Leu Glu Asn Lys Val Asp Tyr Ile Val Val Asn Gly Ser  
 100 105 110  
 Ala Ala Asn Thr Thr Asn Gly Thr Ser Gly Asn Leu Val Pro Val Thr  
 115 120 125  
 Thr Asn Lys Arg Thr Asn Val Ser Gly Ser Ile Arg \*  
 130 135 140

<210> 1276  
 <211> 466  
 <212> PRT  
 <213> Homo sapiens

<400> 1276  
 Met Asp Gly Arg Met Met Arg Ser Met Arg Leu Arg Glu Glu Glu Ser  
 1 5 10 15  
 Pro Gly Pro Ser His Thr Ala Ser Cys Leu Cys Gly Ser Ala Pro Cys  
 20 25 30  
 Ile Leu Cys Ser Cys Cys Pro Ala Ser Arg Asn Ser Thr Val Ser Arg  
 35 40 45  
 Leu Ile Phe Thr Phe Phe Leu Phe Leu Gly Val Leu Val Ser Ile Ile  
 50 55 60  
 Met Leu Ser Pro Gly Val Glu Ser Gln Leu Tyr Lys Leu Pro Trp Val  
 65 70 75 80  
 Cys Glu Glu Gly Ala Gly Ile Pro Thr Val Leu Gln Gly His Ile Asp  
 85 90 95  
 Cys Gly Ser Leu Leu Gly Tyr Arg Ala Val Tyr Arg Met Cys Phe Ala  
 100 105 110  
 Thr Ala Ala Phe Phe Phe Phe Thr Leu Leu Met Leu Cys Val Ser  
 115 120 125  
 Ser Ser Arg Asp Pro Arg Ala Ala Ile Gln Asn Gly Phe Trp Phe Phe  
 130 135 140  
 Lys Phe Leu Ile Leu Val Gly Leu Thr Val Gly Ala Phe Tyr Ile Pro  
 145 150 155 160  
 Asp Gly Ser Phe Thr Asn Ile Trp Phe Tyr Phe Gly Val Val Gly Ser  
 165 170 175  
 Phe Leu Phe Ile Leu Ile Gln Leu Val Leu Leu Ile Asp Phe Ala His  
 180 185 190  
 Ser Trp Asn Gln Arg Trp Leu Gly Lys Ala Glu Glu Cys Asp Ser Arg  
 195 200 205  
 Ala Trp Tyr Ala Gly Leu Phe Phe Thr Leu Leu Phe Tyr Leu Leu  
 210 215 220  
 Ser Ile Ala Ala Val Ala Leu Met Phe Met Tyr Tyr Thr Glu Pro Ser  
 225 230 235 240  
 Gly Cys His Glu Gly Lys Val Phe Ile Ser Leu Asn Leu Thr Phe Cys  
 245 250 255  
 Val Cys Val Ser Ile Ala Ala Val Leu Pro Lys Val Gln Asp Ala Gln  
 260 265 270  
 Pro Asn Ser Gly Leu Leu Gln Ala Ser Val Ile Thr Leu Tyr Thr Met  
 275 280 285  
 Phe Val Thr Trp Ser Ala Leu Ser Ser Ile Pro Glu Gln Lys Cys Asn  
 290 295 300  
 Pro His Leu Pro Thr Gln Leu Gly Asn Glu Thr Val Val Ala Gly Pro  
 305 310 315 320  
 Glu Gly Tyr Glu Thr Gln Trp Trp Asp Ala Pro Ser Ile Val Gly Leu  
 325 330 335  
 Ile Ile Phe Leu Leu Cys Thr Leu Phe Ile Ser Leu Arg Ser Ser Asp  
 340 345 350  
 His Arg Gln Val Asn Ser Leu Met Gln Thr Glu Glu Cys Pro Pro Met  
 355 360 365  
 Leu Asp Ala Thr Gln Gln Gln Gln Gln Val Ala Ala Cys Glu Gly  
 370 375 380  
 Arg Ala Phe Asp Asn Glu Gln Asp Gly Val Thr Tyr Ser Tyr Ser Phe  
 385 390 395 400  
 Phe His Phe Cys Leu Val Leu Ala Ser Leu His Val Met Met Thr Leu  
 405 410 415  
 Thr Asn Trp Tyr Lys Pro Gly Glu Thr Arg Lys Met Ile Ser Thr Trp  
 420 425 430

Thr Ala Val Trp Val Lys Ile Cys Ala Ser Trp Ala Gly Leu Leu Leu  
 435 440 445  
 Tyr Leu Trp Thr Leu Val Ala Pro Leu Leu Leu Arg Asn Arg Asp Phe  
 450 455 460  
 Ser \*  
 465

<210> 1277  
 <211> 404  
 <212> PRT  
 <213> Homo sapiens

<400> 1277  
 Met Phe Val Ala Ser Glu Arg Lys Met Arg Ala His Gln Val Leu Thr  
 1 5 10 15  
 Phe Leu Leu Leu Phe Val Ile Thr Ser Val Ala Ser Glu Asn Ala Ser  
 20 25 30  
 Thr Ser Arg Gly Cys Gly Leu Asp Leu Leu Pro Gln Tyr Val Ser Leu  
 35 40 45  
 Cys Asp Leu Asp Ala Ile Trp Gly Ile Val Val Glu Ala Val Ala Gly  
 50 55 60  
 Ala Gly Ala Leu Ile Thr Leu Leu Leu Met Leu Ile Leu Leu Val Arg  
 65 70 75 80  
 Leu Pro Phe Ile Lys Glu Lys Glu Lys Lys Ser Pro Val Gly Leu His  
 85 90 95  
 Phe Leu Phe Leu Leu Gly Thr Leu Gly Leu Phe Gly Leu Thr Phe Ala  
 100 105 110  
 Phe Ile Ile Gln Glu Asp Glu Thr Ile Cys Ser Val Arg Arg Phe Leu  
 115 120 125  
 Trp Gly Val Leu Phe Ala Leu Cys Phe Ser Cys Leu Leu Ser Gln Ala  
 130 135 140  
 Trp Arg Val Arg Arg Leu Val Arg His Gly Thr Gly Pro Ala Gly Trp  
 145 150 155 160  
 Gln Leu Val Gly Leu Ala Leu Cys Leu Met Leu Val Gln Val Ile Ile  
 165 170 175  
 Ala Val Glu Trp Leu Val Leu Thr Val Leu Arg Asp Thr Arg Pro Ala  
 180 185 190  
 Cys Ala Tyr Glu Pro Met Asp Phe Val Met Ala Leu Ile Tyr Asp Met  
 195 200 205  
 Val Leu Leu Val Val Thr Leu Gly Leu Ala Leu Phe Thr Leu Cys Gly  
 210 215 220  
 Lys Phe Lys Arg Trp Lys Leu Asn Gly Ala Phe Leu Leu Ile Thr Ala  
 225 230 235 240  
 Phe Leu Ser Val Leu Ile Trp Val Ala Trp Met Thr Met Tyr Leu Phe  
 245 250 255  
 Gly Asn Val Lys Leu Gln Gln Gly Asp Ala Trp Asn Asp Pro Thr Leu  
 260 265 270  
 Ala Ile Thr Leu Ala Ala Ser Gly Trp Val Phe Val Ile Phe His Ala  
 275 280 285  
 Ile Pro Glu Ile His Cys Thr Leu Leu Pro Ala Leu Gln Glu Asn Thr  
 290 295 300  
 Pro Asn Tyr Phe Asp Thr Ser Gln Pro Arg Met Arg Glu Thr Ala Phe  
 305 310 315 320  
 Glu Glu Asp Val Gln Leu Pro Arg Ala Tyr Met Glu Asn Lys Ala Phe  
 325 330 335  
 Ser Met Asp Glu His Asn Ala Ala Leu Arg Thr Ala Gly Phe Pro Asn  
 340 345 350  
 Gly Ser Leu Gly Lys Arg Pro Ser Gly Ser Leu Gly Lys Arg Pro Ser  
 355 360 365  
 Ala Pro Phe Arg Ser Asn Val Tyr Gln Pro Thr Glu Met Ala Val Val  
 370 375 380

Leu Asn Gly Gly Thr Ile Pro Thr Ala Pro Pro Ser His Thr Gly Arg  
 385 390 395 400  
 His Leu Trp \*  
 403

<210> 1278  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

<400> 1278  
 Met Ser Arg Phe Leu Asn Val Leu Arg Ser Trp Leu Val Met Val Ser  
 1 5 10 15  
 Ile Ile Ala Met Gly Asn Thr Leu Gln Ser Phe Arg Asp His Thr Phe  
 20 25 30  
 Leu Tyr Glu Lys Leu Tyr Thr Gly Lys Pro Asn Leu Val Asn Gly Leu  
 35 40 45  
 Gln Ala Arg Thr Phe Gly Ile Trp Thr Leu Leu Ser Ser Val Ile Arg  
 50 55 60  
 Cys Leu Cys Ala Ile Asp Ile His Asn Lys Thr Leu Tyr His Ile Thr  
 65 70 75 80  
 Leu Trp Thr Phe Leu Leu Ala Leu Gly His Phe Leu Ser Glu Leu Phe  
 85 90 95  
 Val Tyr Gly Thr Ala Ala Pro Thr Ile Gly Val Leu Ala Pro Leu Met  
 100 105 110  
 Val Ala Ser Phe Ser Ile Leu Gly Met Leu Val Gly Leu Arg Tyr Leu  
 115 120 125  
 Glu Val Glu Pro Val Ser Arg Gln Lys Lys Arg Asn  
 130 135 140

<210> 1279  
 <211> 244  
 <212> PRT  
 <213> Homo sapiens

<400> 1279  
 Met Lys Ser Glu Glu Gln Lys Ile Lys Asp Ala Arg Lys Gly Pro Leu  
 1 5 10 15  
 Val Pro Phe Pro Asn Gln Lys Ser Glu Ala Ala Glu Pro Pro Lys Thr  
 20 25 30  
 Pro Pro Ser Ser Cys Asp Ser Thr Asn Ala Ala Ile Ala Lys Gln Ala  
 35 40 45  
 Leu Lys Lys Pro Ile Lys Gly Lys Gln Ala Pro Arg Lys Lys Ala Gln  
 50 55 60  
 Gly Lys Thr Gln Gln Asn Arg Lys Leu Thr Asp Phe Tyr Pro Val Arg  
 65 70 75 80  
 Arg Ser Ser Arg Lys Ser Lys Ala Glu Leu Gln Ser Glu Glu Arg Lys  
 85 90 95  
 Arg Ile Asp Glu Leu Ile Glu Ser Gly Lys Glu Glu Gly Met Lys Ile  
 100 105 110  
 Asp Leu Ile Asp Gly Lys Gly Arg Gly Val Ile Ala Thr Lys Gln Phe  
 115 120 125  
 Ser Arg Gly Asp Phe Val Val Glu Tyr His Gly Asp Leu Ile Glu Ile  
 130 135 140  
 Thr Asp Ala Lys Lys Arg Glu Ala Leu Tyr Ala Gln Asp Pro Ser Thr  
 145 150 155 160  
 Gly Cys Tyr Met Tyr Tyr Phe Gln Tyr Leu Ser Lys Thr Tyr Cys Val  
 165 170 175

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Asp Ala Thr Arg Glu Thr Asn Arg Leu Gly Arg Leu Ile Asn His Ser
      180      185      190
Lys Cys Gly Asn Cys Gln Thr Lys Leu His Asp Ile Asp Gly Val Pro
      195      200      205
His Leu Ile Leu Ile Ala Ser Arg Asp Ile Ala Ala Gly Glu Glu Leu
      210      215      220
Leu Tyr Asp Tyr Gly Asp Arg Ser Lys Ala Ser Ile Glu Ala His Pro
      225      230      235      240
Trp Leu Lys His
      244

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<210> 1280
<211> 263
<212> PRT
<213> Homo sapiens

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<400> 1280
Met Thr Cys Trp Leu Arg Gly Val Thr Ala Thr Phe Gly Arg Pro Ala
  1      5      10      15
Glu Trp Pro Gly Tyr Leu Ser His Leu Cys Gly Arg Ser Ala Ala Met
      20      25      30
Asp Leu Gly Pro Met Arg Lys Ser Tyr Arg Gly Asp Arg Glu Ala Phe
      35      40      45
Glu Glu Thr His Leu Thr Ser Leu Asp Pro Val Lys Gln Phe Ala Ala
      50      55      60
Trp Phe Glu Glu Ala Val Gln Cys Pro Asp Ile Gly Glu Ala Asn Ala
      65      70      75      80
Met Cys Leu Ala Thr Cys Thr Arg Asp Gly Lys Pro Ser Ala Arg Met
      85      90      95
Leu Leu Leu Lys Gly Phe Gly Lys Asp Gly Phe Arg Phe Phe Thr Asn
      100      105      110
Phe Glu Ser Arg Lys Gly Lys Glu Leu Asp Ser Asn Pro Phe Ala Ser
      115      120      125
Leu Val Phe Tyr Trp Glu Pro Leu Asn Arg Gln Val Arg Val Glu Gly
      130      135      140
Pro Val Lys Lys Leu Pro Glu Glu Glu Ala Glu Val Ala Thr Phe His
      145      150      155      160
Phe Pro Gly Pro Lys Ser Ser Gln Ile Gly Ala Val Val Ser His Gln
      165      170      175
Ser Ser Val Ile Pro Asp Arg Glu Tyr Leu Arg Lys Lys Asn Glu Glu
      180      185      190
Leu Glu Gln Leu Tyr Gln Asp Gln Glu Val Pro Lys Pro Lys Ser Trp
      195      200      205
Gly Gly Tyr Val Leu Tyr Pro Gln Val Met Glu Phe Trp Gln Gly Gln
      210      215      220
Thr Asn Arg Leu His Asp Arg Ile Val Phe Arg Arg Gly Leu Pro Thr
      225      230      235      240
Gly Asp Ser Pro Leu Gly Pro Met Thr His Arg Gly Glu Glu Asp Trp
      245      250      255
Leu Tyr Glu Arg Leu Ala Pro
      260      263

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<210> 1281
<211> 379
<212> PRT
<213> Homo sapiens

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<400> 1281

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Met Glu Val Lys Pro Pro Pro Gly Arg Pro Gln Pro Asp Ser Gly Arg
 1          5          10          15
Arg Arg Arg Arg Arg Gly Glu Glu Gly His Asp Pro Lys Glu Pro Glu
 20          25          30
Gln Leu Arg Lys Leu Phe Ile Gly Gly Leu Ser Phe Glu Thr Thr Asp
 35          40          45
Asp Ser Leu Arg Glu His Phe Glu Lys Trp Gly Thr Leu Thr Asp Cys
 50          55          60
Val Val Met Arg Asp Pro Gln Thr Lys Arg Ser Arg Gly Phe Gly Phe
 65          70          75          80
Val Thr Tyr Ser Cys Val Glu Glu Val Asp Ala Ala Met Cys Ala Arg
 85          90          95
Pro His Lys Val Asp Gly Arg Val Val Glu Pro Lys Arg Ala Val Ser
 100          105          110
Arg Glu Asp Ser Val Lys Pro Gly Ala His Leu Thr Val Lys Lys Ile
 115          120          125
Phe Val Gly Gly Ile Lys Glu Asp Thr Glu Glu Tyr Asn Leu Arg Asp
 130          135          140
Tyr Phe Glu Lys Tyr Gly Lys Ile Glu Thr Ile Glu Val Met Glu Asp
 145          150          155          160
Arg Gln Ser Gly Lys Lys Arg Gly Phe Ala Phe Val Thr Phe Asp Asp
 165          170          175
His Asp Thr Val Asp Lys Ile Val Val Gln Lys Tyr His Thr Ile Asn
 180          185          190
Gly His Asn Cys Glu Val Lys Lys Ala Leu Ala Lys Gln Val Met Gln
 195          200          205
Pro Ala Gly Ser Gln Arg Gly Arg Gly Gly Gly Ser Gly Asn Cys Met
 210          215          220
Gly His Arg Gly Asn Phe Gly Gly Gly Gly Gly Asn Phe Gly Arg Asp
 225          230          235          240
Gly Asn Phe Gly Gly Arg Gly Gly Tyr Gly Gly Gly Gly Gly Ser
 245          250          255
Arg Gly Ser Tyr Gly Gly Gly Asp Gly Gly Tyr Asn Gly Phe Gly Gly
 260          265          270
Asp Gly Gly Asn Tyr Gly Gly Gly Pro Gly Tyr Ser Ser Arg Gly Gly
 275          280          285
Tyr Gly Gly Gly Gly Pro Gly Tyr Gly Asn Gln Gly Gly Gly Tyr Gly
 290          295          300
Gly Gly Gly Gly Tyr Asp Gly Tyr Asn Glu Gly Gly Asn Phe Gly Gly
 305          310          315          320
Gly Asn Tyr Gly Gly Gly Gly Asn Tyr Asn Asp Phe Gly Asn Tyr Ser
 325          330          335
Gly Gln Gln Gln Ser Asn Tyr Gly Pro Met Lys Gly Gly Ser Phe Gly
 340          345          350
Gly Arg Ser Ser Gly Ser Pro Tyr Gly Gly Gly Tyr Gly Ser Gly Gly
 355          360          365
Gly Ser Gly Gly Tyr Gly Ser Arg Arg Phe *
 370          375          378

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<210> 1282
<211> 366
<212> PRT
<213> Homo sapiens

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<400> 1282
Met Ala Ala Leu Arg Asp Ala Glu Ile Gln Lys Asp Val Gln Thr Tyr
 1          5          10          15
Tyr Gly Gln Val Leu Lys Arg Ser Ala Asp Leu Gln Thr Asn Gly Cys
 20          25          30
Val Thr Thr Ala Arg Pro Val Pro Lys His Ile Arg Glu Ala Leu Gln
 35          40          45

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Asn Val His Glu Glu Val Ala Leu Arg Tyr Tyr Gly Cys Gly Leu Val
 50          55          60
Ile Pro Glu His Leu Glu Asn Cys Trp Ile Leu Asp Leu Gly Ser Gly
 65          70          75          80
Ser Gly Arg Asp Cys Tyr Val Leu Ser Gln Leu Val Gly Glu Lys Gly
          85          90          95
His Val Thr Gly Ile Asp Met Thr Lys Gly Gln Val Glu Val Ala Glu
          100          105          110
Lys Tyr Leu Asp Tyr His Met Glu Lys Tyr Gly Phe Gln Ala Ser Asn
          115          120          125
Val Thr Phe Ile His Gly Tyr Ile Glu Lys Leu Gly Glu Ala Gly Ile
          130          135          140
Lys Asn Glu Ser His Asp Ile Val Val Ser Asn Cys Val Ile Asn Leu
          145          150          155          160
Val Pro Asp Lys Gln Gln Val Leu Gln Glu Ala Tyr Arg Val Leu Lys
          165          170          175
His Gly Gly Glu Leu Tyr Phe Ser Asp Val Tyr Thr Ser Leu Glu Leu
          180          185          190
Pro Glu Glu Ile Arg Thr His Lys Val Leu Trp Gly Glu Cys Leu Gly
          195          200          205
Gly Ala Leu Tyr Trp Lys Glu Leu Ala Val Leu Ala Gln Lys Ile Gly
          210          215          220
Phe Cys Pro Pro Arg Leu Val Thr Ala Asn Leu Ile Thr Ile Gln Asn
          225          230          235          240
Lys Glu Leu Glu Arg Val Ile Gly Asp Cys Arg Phe Val Ser Ala Thr
          245          250          255
Phe Arg Leu Phe Lys His Ser Lys Thr Gly Pro Thr Lys Arg Cys Gln
          260          265          270
Val Ile Tyr Asn Gly Gly Ile Thr Gly His Glu Lys Glu Leu Met Phe
          275          280          285
Asp Ala Asn Phe Thr Phe Lys Glu Gly Glu Ile Val Glu Val Asp Glu
          290          295          300
Glu Thr Ala Ala Ile Leu Lys Asn Ser Arg Phe Ala Gln Asp Phe Leu
          305          310          315          320
Ile Arg Pro Ile Gly Glu Lys Leu Pro Thr Ser Gly Gly Cys Ser Ala
          325          330          335
Leu Glu Leu Lys Asp Ile Ile Thr His Pro Phe Lys Leu Ala Glu Lys
          340          345          350
Phe Asp Pro Met Asn Ser Thr Arg Ala Pro Asp Ala Ser *
          355          360          365

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&lt;210&gt; 1283

&lt;211&gt; 383

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1283

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Met Ala Ala Leu Arg Asp Ala Glu Ile Gln Lys Asp Val Gln Thr Tyr
 1          5          10          15
Tyr Gly Gln Val Leu Lys Arg Ser Ala Asp Leu Gln Thr Asn Gly Cys
          20          25          30
Val Thr Thr Ala Arg Pro Val Pro Lys His Ile Arg Glu Ala Leu Gln
          35          40          45
Asn Val His Glu Glu Val Ala Leu Arg Tyr Tyr Gly Cys Gly Leu Val
          50          55          60
Ile Pro Glu His Leu Glu Asn Cys Trp Ile Leu Asp Leu Gly Ser Gly
          65          70          75          80
Ser Gly Arg Asp Cys Tyr Val Leu Ser Gln Leu Val Gly Glu Lys Gly
          85          90          95
His Val Thr Gly Ile Asp Met Thr Lys Gly Gln Val Glu Val Ala Glu
          100          105          110

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Lys Tyr Leu Asp Tyr His Met Glu Lys Tyr Gly Phe Gln Ala Ser Asn  
 115 120 125  
 Val Thr Phe Ile His Gly Tyr Ile Glu Lys Leu Gly Glu Ala Gly Ile  
 130 135 140  
 Lys Asn Glu Ser His Asp Ile Val Val Ser Asn Cys Val Ile Asn Leu  
 145 150 155 160  
 Val Pro Asp Lys Gln Gln Val Leu Gln Glu Ala Tyr Arg Val Leu Lys  
 165 170 175  
 Val Ala Lys Gly Ser Lys Ser Glu Val Thr Val Val Thr Glu Cys Val  
 180 185 190  
 Lys His Gly Gly Glu Leu Tyr Phe Ser Asp Val Tyr Thr Ser Leu Glu  
 195 200 205  
 Leu Pro Glu Glu Ile Arg Thr His Lys Val Leu Trp Gly Glu Cys Leu  
 210 215 220  
 Gly Gly Ala Leu Tyr Trp Lys Glu Leu Ala Val Leu Ala Gln Lys Ile  
 225 230 235 240  
 Gly Phe Cys Pro Pro Arg Leu Val Thr Ala Asn Leu Ile Thr Ile Gln  
 245 250 255  
 Asn Lys Glu Leu Glu Arg Val Ile Gly Asp Cys Arg Phe Val Ser Ala  
 260 265 270  
 Thr Phe Arg Leu Phe Lys His Ser Lys Thr Gly Pro Thr Lys Arg Cys  
 275 280 285  
 Gln Val Ile Tyr Asn Gly Gly Ile Thr Gly His Glu Lys Glu Leu Met  
 290 295 300  
 Phe Asp Ala Asn Phe Thr Phe Lys Glu Gly Glu Ile Val Glu Val Asp  
 305 310 315 320  
 Glu Glu Thr Ala Ala Ile Leu Lys Asn Ser Arg Phe Ala Gln Asp Phe  
 325 330 335  
 Leu Ile Arg Pro Ile Gly Glu Lys Leu Pro Thr Ser Gly Gly Cys Ser  
 340 345 350  
 Ala Leu Glu Leu Lys Asp Ile Ile Thr His Pro Phe Lys Leu Ala Glu  
 355 360 365  
 Lys Phe Asp Pro Met Asn Ser Thr Arg Ala Pro Asp Ala Ser \*  
 370 375 380 382

&lt;210&gt; 1284

&lt;211&gt; 209

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1284

Lys Leu Val Arg Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp Pro  
 1 5 10 15  
 Arg Val Arg Leu Gly Ser Asn Thr Ala Pro Ala Leu Arg Val Met Val  
 20 25 30  
 Gln Ala Trp Tyr Met Asp Asp Ala Pro Gly Asp Pro Arg Gln Pro His  
 35 40 45  
 Arg Pro Asp Pro Gly Arg Pro Val Gly Leu Glu Gln Leu Arg Arg Leu  
 50 55 60  
 Gly Val Leu Tyr Trp Lys Leu Asp Ala Asp Lys Tyr Glu Asn Asp Pro  
 65 70 75 80  
 Glu Leu Glu Lys Ile Arg Arg Glu Arg Asn Tyr Ser Trp Met Asp Ile  
 85 90 95  
 Ile Thr Ile Cys Lys Asp Lys Leu Pro Asn Tyr Glu Glu Lys Ile Lys  
 100 105 110  
 Met Phe Tyr Glu Glu His Leu His Leu Asp Asp Glu Ile Arg Tyr Ile  
 115 120 125  
 Leu Asp Gly Ser Gly Tyr Phe Asp Val Arg Asp Lys Glu Asp Gln Trp  
 130 135 140  
 Ile Arg Ile Phe Met Glu Lys Gly Asp Met Val Thr Leu Pro Ala Gly  
 145 150 155 160

Ile Tyr His Arg Phe Thr Val Asp Glu Lys Asn Tyr Thr Lys Ala Met  
                           165                          170                          175  
 Arg Leu Phe Val Gly Glu Pro Val Trp Thr Ala Tyr Asn Arg Pro Ala  
                           180                          185                          190  
 Asp His Phe Glu Ala Arg Gly Gln Tyr Val Lys Phe Leu Ala Gln Thr  
                           195                          200                          205  
 Ala  
 209

<210> 1285  
 <211> 306  
 <212> PRT  
 <213> Homo sapiens

<400> 1285  
 Met Gly Ile Gln Thr Ser Pro Val Leu Leu Ala Ser Leu Gly Val Gly  
   1                          5                          10                          15  
 Leu Val Thr Leu Leu Gly Leu Ala Val Gly Ser Tyr Leu Val Arg Arg  
                           20                          25                          30  
 Ser Arg Arg Pro Gln Val Thr Leu Leu Asp Pro Asn Glu Lys Tyr Leu  
                           35                          40                          45  
 Leu Arg Leu Leu Asp Lys Thr Val Ser His Asn Thr Lys Arg Phe  
                           50                          55                          60  
 Arg Phe Ala Leu Pro Thr Ala His His Thr Leu Gly Leu Pro Val Gly  
                           65                          70                          75                          80  
 Lys His Ile Tyr Leu Ser Thr Arg Ile Asp Gly Ser Leu Val Ile Arg  
                           85                          90                          95  
 Pro Tyr Thr Pro Val Thr Ser Asp Glu Asp Gln Gly Tyr Val Asp Leu  
                           100                          105                          110  
 Val Ile Lys Val Tyr Leu Lys Gly Val His Pro Lys Phe Pro Glu Gly  
                           115                          120                          125  
 Gly Lys Met Ser Gln Tyr Leu Asp Ser Leu Lys Val Gly Asp Val Val  
                           130                          135                          140  
 Glu Phe Arg Gly Pro Ser Gly Leu Leu Thr Tyr Thr Gly Lys Gly His  
                           145                          150                          155                          160  
 Phe Asn Ile Gln Pro Asn Lys Lys Ser Pro Pro Glu Pro Arg Val Ala  
                           165                          170                          175  
 Lys Lys Leu Gly Met Ile Ala Gly Gly Thr Gly Ile Thr Pro Met Leu  
                           180                          185                          190  
 Gln Leu Ile Arg Ala Ile Leu Lys Val Pro Glu Asp Pro Thr Gln Cys  
                           195                          200                          205  
 Phe Leu Leu Phe Ala Asn Gln Thr Glu Lys Asp Ile Ile Leu Arg Glu  
                           210                          215                          220  
 Asp Leu Glu Glu Leu Gln Ala Arg Tyr Pro Asn Arg Phe Lys Leu Trp  
                           225                          230                          235                          240  
 Phe Thr Leu Asp His Pro Pro Lys Asp Trp Ala Tyr Ser Lys Gly Phe  
                           245                          250                          255  
 Val Thr Ala Asp Met Ile Arg Glu His Leu Pro Ala Pro Gly Asp Asp  
                           260                          265                          270  
 Val Leu Val Leu Leu Cys Gly Pro Pro Pro Met Val Gln Leu Ala Cys  
                           275                          280                          285  
 His Pro Asn Leu Asp Lys Leu Gly Tyr Ser Gln Lys Met Arg Phe Thr  
                           290                          295                          300  
 Tyr \*  
 305

<210> 1286  
 <211> 328  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1286

```

Met Ser Met Leu Ala Glu Arg Arg Arg Lys Gln Lys Trp Ala Val Asp
 1          5          10          15
Pro Gln Asn Thr Ala Trp Ser Asn Asp Asp Ser Lys Phe Gly Gln Arg
          20          25          30
Met Leu Glu Lys Met Gly Trp Ser Lys Gly Lys Gly Leu Gly Ala Gln
          35          40          45
Glu Gln Gly Ala Thr Asp His Ile Lys Val Gln Val Lys Asn Asn His
          50          55          60
Leu Gly Leu Gly Ala Thr Ile Asn Asn Glu Asp Asn Trp Ile Ala His
          65          70          75          80
Gln Asp Asp Phe Asn Gln Leu Leu Ala Glu Leu Asn Thr Cys His Gly
          85          90          95
Gln Glu Thr Thr Asp Ser Ser Asp Lys Lys Glu Lys Lys Ser Phe Ser
          100          105          110
Leu Glu Glu Lys Ser Lys Ile Ser Lys Asn Arg Val His Tyr Met Lys
          115          120          125
Phe Thr Lys Gly Lys Asp Leu Ser Ser Arg Ser Lys Thr Asp Leu Asp
          130          135          140
Cys Ile Phe Gly Lys Arg Gln Ser Lys Lys Thr Pro Glu Gly Asp Ala
          145          150          155          160
Ser Pro Ser Thr Pro Glu Glu Asn Glu Thr Thr Thr Ser Ala Phe
          165          170          175
Thr Ile Gln Glu Tyr Phe Ala Lys Arg Met Ala Ala Leu Lys Asn Lys
          180          185          190
Pro Gln Val Pro Val Pro Gly Ser Asp Ile Ser Glu Thr Gln Val Glu
          195          200          205
Arg Lys Arg Gly Lys Lys Arg Asn Lys Glu Ala Thr Gly Lys Asp Val
          210          215          220
Glu Ser Tyr Leu Gln Pro Lys Ala Lys Arg His Thr Glu Gly Lys Pro
          225          230          235          240
Glu Arg Ala Glu Ala Gln Glu Arg Val Ala Lys Lys Lys Ser Ala Pro
          245          250          255
Ala Glu Glu Gln Leu Arg Gly Pro Cys Trp Asp Gln Ser Ser Lys Ala
          260          265          270
Ser Ala Gln Asp Ala Gly Asp His Val Gln Pro Pro Glu Gly Arg Asp
          275          280          285
Phe Thr Leu Lys Pro Lys Lys Arg Arg Gly Lys Lys Lys Leu Gln Lys
          290          295          300
Pro Val Glu Ile Ala Glu Asp Ala Thr Leu Glu Glu Thr Leu Val Lys
          305          310          315          320
Lys Lys Lys Lys Lys Asp Ser Lys
          325          328

```

&lt;210&gt; 1287

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1287

```

Met Lys Val Lys Ile Lys Cys Trp Asn Gly Val Ala Thr Trp Leu Trp
 1          5          10          15
Val Ala Asn Asp Glu Asn Cys Gly Ile Cys Arg Met Ala Phe Asn Gly
          20          25          30
Cys Cys Pro Asp Cys Lys Val Pro Gly Asp Asp Cys Pro Leu Val Trp
          35          40          45
Gly Gln Cys Ser His Cys Phe His Met His Cys Ile Leu Lys Trp Leu
          50          55          60

```

His Ala Gln Gln Val Gln Gln His Cys Pro Met Cys Arg Gln Glu Trp  
 65 70 75 80  
 Lys Phe Lys Glu  
 84

<210> 1288  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 1288  
 Met Ser Lys Val Ser Phe Lys Ile Thr Leu Thr Ser Asp Pro Arg Leu  
 1 5 10 15  
 Pro Tyr Lys Val Leu Ser Val Pro Glu Ser Thr Pro Phe Thr Ala Val  
 20 25 30  
 Leu Lys Phe Ala Ala Glu Glu Phe Lys Val Pro Ala Ala Thr Ser Ala  
 35 40 45  
 Ile Ile Thr Asn Asp Gly Ile Gly Ile Asn Pro Ala Gln Thr Ala Gly  
 50 55 60  
 Asn Val Phe Leu Lys His Gly Ser Glu Leu Arg Ile Ile Pro Arg Asp  
 65 70 75 80  
 Arg Val Gly Ser Cys  
 85

<210> 1289  
 <211> 382  
 <212> PRT  
 <213> Homo sapiens

<400> 1289  
 Met Val Met Val Val Arg Asn Pro Ile Ile Glu Lys Gln Ser Lys Asp  
 1 5 10 15  
 Gly Lys Pro Val Ile Glu Tyr Gln Glu Glu Glu Leu Leu Asp Lys Val  
 20 25 30  
 Tyr Ser Ser Val Leu Arg Gln Cys Tyr Ser Met Tyr Lys Leu Phe Asn  
 35 40 45  
 Gly Thr Phe Leu Lys Ala Met Glu Asp Gly Gly Val Lys Leu Leu Lys  
 50 55 60  
 Glu Arg Leu Glu Lys Phe Phe His Arg Tyr Leu Gln Thr Leu His Leu  
 65 70 75 80  
 Gln Ser Cys Asp Leu Leu Asp Ile Phe Gly Gly Ile Ser Phe Phe Pro  
 85 90 95  
 Leu Asp Lys Met Thr Tyr Leu Lys Ile Gln Ser Phe Ile Asn Arg Met  
 100 105 110  
 Glu Glu Ser Leu Asn Ile Val Lys Tyr Thr Ala Phe Leu Tyr Asn Asp  
 115 120 125  
 Gln Leu Ile Trp Ser Gly Leu Glu Gln Asp Asp Met Arg Ile Leu Tyr  
 130 135 140  
 Lys Tyr Leu Thr Thr Ser Leu Phe Pro Arg His Ile Glu Pro Glu Leu  
 145 150 155 160  
 Ala Gly Arg Asp Ser Pro Ile Arg Ala Glu Met Pro Gly Asn Leu Gln  
 165 170 175  
 His Tyr Gly Arg Phe Leu Thr Gly Pro Leu Asn Leu Asn Asp Pro Asp  
 180 185 190  
 Ala Lys Cys Arg Phe Pro Lys Ile Phe Val Asn Thr Asp Asp Thr Tyr  
 195 200 205  
 Glu Glu Leu His Leu Ile Val Tyr Lys Ala Met Ser Ala Ala Val Cys  
 210 215 220

```

Phe Met Ile Asp Ala Ser Val His Pro Thr Leu Asp Phe Cys Arg Arg
225                230                235                240
Leu Asp Ser Ile Val Gly Pro Gln Leu Thr Val Leu Ala Ser Asp Ile
                245                250                255
Cys Glu Gln Phe Asn Ile Asn Lys Arg Met Ser Gly Ser Glu Lys Glu
                260                265                270
Pro Gln Phe Lys Phe Ile Tyr Phe Asn His Met Asn Leu Ala Glu Lys
                275                280                285
Ser Thr Val His Met Arg Lys Thr Pro Ser Val Ser Leu Thr Ser Val
                290                295                300
His Pro Asp Leu Met Lys Ile Leu Gly Asp Ile Asn Ser Asp Phe Thr
305                310                315                320
Arg Val Asp Glu Asp Glu Glu Ile Ile Val Lys Ala Met Ser Asp Tyr
                325                330                335
Trp Val Val Gly Lys Lys Ser Asp Arg Arg Glu Leu Tyr Val Ile Leu
                340                345                350
Asn Gln Lys Asn Ala Asn Leu Ile Glu Val Asn Glu Glu Val Lys Lys
                355                360                365
Leu Cys Ala Thr Gln Phe Asn Asn Ile Phe Phe Leu Asp *
                370                375                380 381

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<210> 1290
<211> 475
<212> PRT
<213> Homo sapiens

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<400> 1290
Met Pro His Arg Lys Lys Lys Pro Phe Ile Glu Lys Lys Lys Ala Val
1          5          10          15
Ser Phe His Leu Val His Arg Ser Gln Arg Asp Pro Leu Ala Ala Asp
                20          25          30
Glu Ser Ala Pro Gln Arg Val Leu Leu Pro Thr Gln Lys Ile Asp Asn
                35          40          45
Glu Glu Arg Arg Ala Glu Gln Arg Lys Tyr Gly Val Phe Phe Asp Asp
                50          55          60
Asp Tyr Asp Tyr Leu Gln His Leu Lys Glu Pro Ser Gly Pro Ser Glu
65          70          75          80
Leu Ile Pro Ser Ser Thr Phe Ser Ala His Asn Arg Arg Glu Glu Lys
                85          90          95
Glu Glu Thr Leu Val Ile Pro Ser Thr Gly Ile Lys Leu Pro Ser Ser
                100         105         110
Val Phe Ala Ser Glu Phe Glu Glu Asp Val Gly Leu Leu Asn Lys Ala
                115         120         125
Ala Pro Val Ser Gly Pro Arg Leu Asp Phe Asp Pro Asp Ile Val Ala
                130         135         140
Ala Leu Asp Asp Asp Phe Asp Phe Asp Asp Pro Asp Asn Leu Leu Glu
145         150         155         160
Asp Asp Phe Ile Leu Gln Ala Asn Lys Ala Thr Gly Glu Glu Glu Gly
                165         170         175
Met Asp Ile Gln Lys Ser Glu Asn Glu Asp Asp Ser Glu Trp Glu Asp
                180         185         190
Val Asp Asp Glu Lys Gly Asp Ser Asn Asp Asp Tyr Asp Ser Ala Gly
                195         200         205
Leu Leu Ser Asp Glu Asp Cys Met Ser Val Pro Gly Lys Thr His Arg
210         215         220
Ala Ile Ala Asp His Leu Phe Trp Ser Glu Glu Thr Lys Ser Arg Phe
225         230         235         240
Thr Glu Tyr Ser Met Thr Ser Ser Val Met Arg Arg Asn Glu Gln Leu
                245         250         255
Thr Leu His Asp Glu Arg Phe Glu Lys Phe Tyr Glu Gln Tyr Asp Asp
                260         265         270

```

Asp Glu Ile Gly Ala Leu Asp Asn Ala Glu Leu Glu Gly Ser Ile Gln  
 275 280 285  
 Val Asp Ser Asn Arg Leu Gln Glu Val Leu Asn Asp Tyr Tyr Lys Glu  
 290 295 300  
 Lys Ala Glu Asn Cys Val Lys Leu Asn Thr Leu Glu Pro Leu Glu Asp  
 305 310 315 320  
 Gln Asp Leu Pro Met Asn Glu Leu Asp Glu Ser Glu Glu Glu Glu Met  
 325 330 335  
 Ile Thr Val Val Leu Glu Glu Ala Lys Glu Lys Trp Asp Cys Glu Ser  
 340 345 350  
 Ile Cys Ser Thr Tyr Ser Asn Leu Tyr Asn His Pro Gln Leu Ile Lys  
 355 360 365  
 Tyr Gln Pro Lys Pro Lys Gln Ile Arg Ile Ser Ser Lys Thr Gly Ile  
 370 375 380  
 Pro Leu Asn Val Leu Pro Lys Lys Gly Leu Thr Ala Lys Gln Thr Glu  
 385 390 395 400  
 Arg Ile Gln Met Ile Asn Gly Ser Asp Leu Pro Lys Val Ser Thr Gln  
 405 410 415  
 Pro Arg Ser Lys Asn Glu Ser Lys Glu Asp Lys Arg Ala Arg Lys Gln  
 420 425 430  
 Ala Ile Lys Glu Glu Arg Lys Glu Arg Arg Val Glu Lys Lys Ala Asn  
 435 440 445  
 Lys Leu Ala Phe Lys Leu Glu Lys Arg Arg Gln Glu Lys Glu Leu Leu  
 450 455 460  
 Asn Leu Lys Lys Asn Val Glu Gly Leu Lys Leu  
 465 470 475

<210> 1291  
 <211> 319  
 <212> PRT  
 <213> Homo sapiens

<400> 1291  
 Met Glu Pro Gly Asn Asp Thr Gln Ile Ser Glu Phe Leu Leu Leu Gly  
 1 5 10 15  
 Phe Ser Gln Glu Pro Gly Leu Gln Pro Phe Leu Phe Gly Leu Phe Leu  
 20 25 30  
 Ser Met Tyr Leu Val Thr Val Leu Gly Asn Leu Leu Ile Ile Leu Ala  
 35 40 45  
 Thr Ile Ser Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Leu Ser  
 50 55 60  
 Asn Leu Ser Phe Ala Asp Ile Cys Val Thr Ser Thr Thr Ile Pro Lys  
 65 70 75 80  
 Met Leu Met Asn Ile Gln Thr Gln Asn Lys Val Ile Thr Tyr Ile Ala  
 85 90 95  
 Cys Leu Met Gln Met Tyr Phe Phe Ile Leu Phe Ala Gly Phe Glu Asn  
 100 105 110  
 Phe Leu Leu Ser Val Met Ala Tyr Asp Arg Phe Val Ala Ile Cys His  
 115 120 125  
 Pro Leu His Tyr Met Val Ile Met Asn Pro His Leu Cys Gly Leu Leu  
 130 135 140  
 Val Leu Ala Ser Trp Thr Met Ser Ala Leu Tyr Ser Leu Leu Gln Ile  
 145 150 155 160  
 Leu Met Val Val Arg Leu Ser Phe Cys Thr Ala Leu Glu Ile Pro His  
 165 170 175  
 Phe Phe Cys Glu Leu Asn Gln Val Ile Gln Leu Ala Cys Ser Asp Ser  
 180 185 190  
 Phe Leu Asn His Met Val Ile Tyr Phe Thr Val Ala Leu Leu Gly Gly  
 195 200 205  
 Gly Pro Leu Thr Gly Ile Leu Tyr Ser Tyr Ser Lys Ile Ile Ser Ser  
 210 215 220

```

Ile His Ala Ile Ser Ser Ala Gln Gly Lys Tyr Lys Ala Phe Ser Thr
225                230                235                240
Cys Ala Ser His Leu Ser Val Val Ser Leu Phe Tyr Gly Ala Ile Leu
                245                250                255
Gly Val Tyr Leu Ser Ser Ala Ala Thr Arg Asn Ser His Ser Ser Ala
                260                265                270
Thr Ala Ser Val Met Tyr Thr Val Val Thr Pro Met Leu Asn Pro Phe
                275                280                285
Ile Tyr Ser Leu Arg Asn Lys Asp Ile Lys Arg Ala Leu Gly Ile His
290                295                300
Leu Leu Trp Gly Thr Met Lys Gly Gln Phe Phe Lys Lys Cys Pro
305                310                315                319

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<210> 1292
<211> 697
<212> PRT
<213> Homo sapiens

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```

<400> 1292
Met Lys Ala Val Arg Lys Arg Asn Glu Thr Ser Val Ile Asp Gln Ile
1          5          10          15
Gly Glu Asp Leu Thr Trp Phe Ser Gly Pro Gly Glu Glu Lys Leu
20          25          30
Lys His Ala Ala Ala Thr Phe Cys Ser Asn Gln Pro Phe Ala Leu Glu
35          40          45
Met Ile Lys Ser Arg Gln Lys Lys Asp Ser Arg Phe Gln Thr Phe Val
50          55          60
Gln Asp Ala Glu Ser Asn Pro Leu Cys Arg Arg Leu Gln Leu Lys Asp
65          70          75          80
Ile Ile Pro Thr Gln Met Gln Arg Leu Thr Lys Tyr Pro Leu Leu Leu
85          90          95
Asp Asn Ile Ala Lys Tyr Thr Glu Trp Pro Thr Glu Arg Glu Lys Val
100         105         110
Lys Lys Ala Ala Asp His Cys Arg Gln Ile Leu Asn Tyr Val Asn Gln
115         120         125
Ala Val Lys Glu Ala Glu Asn Lys Gln Arg Leu Glu Asp Tyr Gln Arg
130         135         140
Arg Leu Asp Thr Ser Ser Leu Lys Leu Ser Glu Tyr Pro Asn Val Glu
145         150         155         160
Glu Leu Arg Asn Leu Asp Leu Thr Lys Arg Lys Met Ile His Glu Gly
165         170         175
Pro Leu Val Trp Lys Val Asn Arg Asp Lys Thr Ile Asp Leu Tyr Thr
180         185         190
Leu Leu Leu Glu Asp Ile Leu Val Leu Leu Gln Lys Gln Asp Asp Arg
195         200         205
Leu Val Leu Arg Cys His Ser Lys Ile Leu Ala Ser Thr Ala Asp Ser
210         215         220
Lys His Thr Phe Ser Pro Val Ile Lys Leu Ser Thr Val Leu Val Arg
225         230         235         240
Gln Val Ala Thr Asp Asn Lys Ala Leu Phe Val Ile Ser Met Ser Asp
245         250         255
Asn Gly Ala Gln Ile Tyr Glu Leu Val Ala Gln Thr Val Ser Glu Lys
260         265         270
Thr Val Trp Gln Asp Leu Ile Cys Arg Met Ala Ala Ser Val Lys Glu
275         280         285
Gln Ser Thr Lys Pro Ile Pro Leu Pro Gln Ser Thr Pro Gly Glu Gly
290         295         300
Asp Asn Asp Glu Glu Asp Pro Ser Lys Leu Lys Glu Glu Gln His Gly
305         310         315         320
Ile Ser Val Thr Gly Leu Gln Ser Pro Asp Arg Asp Leu Gly Leu Glu
325         330         335

```



Ser Thr Leu Ile Ser Ser Lys Pro Gln Ser His Ser Leu Ser Thr Ser  
 340 345 350  
 Gly Lys Ser Glu Val Arg Asp Leu Phe Val Ala Glu Arg Gln Phe Ala  
 355 360 365  
 Lys Glu Gln His Thr Asp Gly Thr Leu Lys Glu Val Gly Glu Asp Tyr  
 370 375 380  
 Gln Ile Ala Ile Pro Asp Ser His Leu Pro Val Ser Glu Glu Arg Trp  
 385 390 395 400  
 Ala Leu Asp Ala Leu Arg Asn Leu Gly Leu Leu Lys Gln Leu Leu Val  
 405 410 415  
 Gln Gln Leu Gly Leu Thr Glu Lys Ser Val Gln Glu Asp Trp Gln His  
 420 425 430  
 Phe Pro Arg Tyr Arg Thr Ala Ser Gln Gly Pro Gln Thr Asp Ser Val  
 435 440 445  
 Ile Gln Asn Ser Glu Asn Ile Lys Ala Tyr His Ser Gly Glu Gly His  
 450 455 460  
 Met Pro Phe Arg Thr Gly Thr Gly Asp Ile Ala Thr Cys Tyr Ser Pro  
 465 470 475 480  
 Arg Thr Ser Thr Glu Ser Phe Ala Pro Arg Asp Ser Val Gly Leu Ala  
 485 490 495  
 Pro Gln Asp Ser Gln Ala Ser Asn Ile Leu Val Met Asp His Met Ile  
 500 505 510  
 Met Thr Pro Glu Met Pro Thr Met Glu Pro Glu Gly Gly Leu Asp Asp  
 515 520 525  
 Ser Gly Glu His Phe Phe Asp Ala Arg Glu Ala His Ser Asp Glu Asn  
 530 535 540  
 Pro Ser Glu Gly Asp Gly Ala Val Asn Lys Glu Glu Lys Asp Val Asn  
 545 550 555 560  
 Leu Arg Ile Ser Gly Asn Tyr Leu Ile Leu Asp Gly Tyr Asp Pro Val  
 565 570 575  
 Gln Glu Ser Ser Thr Asp Glu Glu Val Ala Ser Ser Leu Thr Leu Gln  
 580 585 590  
 Pro Met Thr Gly Ile Pro Ala Val Glu Ser Thr His Gln Gln Gln His  
 595 600 605  
 Ser Pro Gln Asn Thr His Ser Asp Gly Ala Ile Ser Pro Phe Thr Pro  
 610 615 620  
 Glu Phe Leu Val Gln Gln Arg Trp Gly Ala Met Glu Tyr Ser Cys Phe  
 625 630 635 640  
 Glu Ile Gln Ser Pro Ser Ser Cys Ala Asp Ser Gln Ser Gln Ile Met  
 645 650 655  
 Glu Tyr Ile His Lys Ile Glu Ala Asp Leu Glu His Leu Lys Lys Val  
 660 665 670  
 Glu Glu Ser Tyr Thr Ile Leu Cys Gln Arg Leu Ala Gly Ser Ala Leu  
 675 680 685  
 Thr Asp Lys His Ser Asp Lys Ser \*  
 690 695 696

&lt;210&gt; 1293

&lt;211&gt; 690

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1293

Met Ala Pro Trp Pro Glu Leu Gly Asp Ala Gln Pro Asn Pro Asp Lys  
 1 5 10 15  
 Tyr Leu Glu Gly Ala Ala Gly Gln Gln Pro Thr Ala Pro Asp Lys Ser  
 20 25 30  
 Lys Glu Thr Asn Lys Thr Asp Asn Thr Glu Ala Pro Val Thr Lys Ile  
 35 40 45  
 Glu Leu Leu Pro Ser Tyr Ser Thr Ala Thr Leu Ile Asp Glu Pro Thr  
 50 55 60

Glu	Val	Asp	Asp	Pro	Trp	Asn	Leu	Pro	Thr	Leu	Gln	Asp	Ser	Gly	Ile
65					70					75					80
Lys	Trp	Ser	Glu	Arg	Asp	Thr	Lys	Gly	Lys	Ile	Leu	Cys	Phe	Phe	Gln
				85					90					95	
Gly	Ile	Gly	Arg	Leu	Ile	Leu	Leu	Leu	Gly	Phe	Leu	Tyr	Phe	Phe	Val
			100					105					110		
Cys	Ser	Leu	Asp	Ile	Leu	Ser	Ser	Ala	Phe	Gln	Leu	Val	Gly	Gly	Lys
		115					120					125			
Met	Ala	Gly	Gln	Phe	Phe	Ser	Asn	Ser	Ser	Ile	Met	Ser	Asn	Pro	Leu
	130					135					140				
Leu	Gly	Leu	Val	Ile	Gly	Val	Leu	Val	Thr	Val	Leu	Val	Gln	Ser	Ser
145				150						155					160
Ser	Thr	Ser	Thr	Ser	Ile	Val	Val	Ser	Met	Val	Ser	Ser	Ser	Leu	Leu
				165					170					175	
Thr	Val	Arg	Ala	Ala	Ile	Pro	Ile	Ile	Met	Gly	Ala	Asn	Ile	Gly	Thr
			180					185					190		
Ser	Ile	Thr	Asn	Thr	Ile	Val	Ala	Leu	Met	Gln	Val	Gly	Asp	Arg	Ser
	195					200						205			
Glu	Phe	Arg	Arg	Ala	Phe	Ala	Gly	Ala	Thr	Val	His	Asp	Phe	Phe	Asn
	210				215						220				
Trp	Leu	Ser	Val	Leu	Val	Leu	Leu	Pro	Val	Glu	Val	Ala	Thr	His	Tyr
225				230						235					240
Leu	Glu	Ile	Ile	Thr	Gln	Leu	Ile	Val	Glu	Ser	Phe	His	Phe	Lys	Asn
				245					250					255	
Gly	Glu	Asp	Ala	Pro	Asp	Leu	Leu	Lys	Val	Ile	Thr	Lys	Pro	Phe	Thr
		260						265					270		
Lys	Leu	Ile	Val	Gln	Leu	Asp	Lys	Lys	Val	Ile	Ser	Gln	Ile	Ala	Met
		275					280					285			
Asn	Asp	Glu	Lys	Ala	Lys	Asn	Lys	Ser	Leu	Val	Lys	Ile	Trp	Cys	Lys
	290					295					300				
Thr	Phe	Thr	Asn	Lys	Thr	Gln	Ile	Asn	Val	Thr	Val	Pro	Ser	Thr	Ala
305				310						315					320
Asn	Cys	Thr	Ser	Pro	Ser	Leu	Cys	Trp	Thr	Asp	Gly	Ile	Gln	Asn	Trp
				325					330					335	
Thr	Met	Lys	Asn	Val	Thr	Tyr	Lys	Glu	Asn	Ile	Ala	Lys	Cys	Gln	His
			340					345					350		
Ile	Phe	Val	Asn	Phe	His	Leu	Pro	Asp	Leu	Ala	Val	Gly	Thr	Ile	Leu
		355				360					365				
Leu	Ile	Leu	Ser	Leu	Leu	Val	Leu	Cys	Gly	Cys	Leu	Ile	Met	Ile	Val
	370					375					380				
Lys	Ile	Leu	Gly	Ser	Val	Leu	Lys	Gly	Gln	Val	Ala	Thr	Val	Ile	Lys
385				390						395					400
Lys	Thr	Ile	Asn	Thr	Asp	Phe	Pro	Phe	Pro	Phe	Ala	Trp	Leu	Thr	Gly
				405					410					415	
Tyr	Leu	Ala	Ile	Leu	Val	Gly	Ala	Gly	Met	Thr	Phe	Ile	Val	Gln	Ser
			420					425					430		
Ser	Ser	Val	Phe	Thr	Ser	Ala	Leu	Thr	Pro	Leu	Ile	Gly	Ile	Gly	Val
		435				440						445			
Ile	Thr	Ile	Glu	Arg	Ala	Tyr	Pro	Leu	Thr	Leu	Gly	Ser	Asn	Ile	Gly
	450					455					460				
Thr	Thr	Thr	Thr	Ala	Ile	Leu	Ala	Ala	Leu	Ala	Ser	Pro	Gly	Asn	Ala
465				470						475					480
Leu	Arg	Ser	Ser	Leu	Gln	Ile	Ala	Leu	Cys	His	Phe	Phe	Phe	Asn	Ile
				485					490					495	
Ser	Gly	Ile	Leu	Leu	Trp	Tyr	Pro	Ile	Pro	Phe	Thr	Arg	Leu	Pro	Ile
			500					505					510		
Arg	Met	Ala	Lys	Gly	Leu	Gly	Asn	Ile	Ser	Ala	Lys	Tyr	Arg	Trp	Phe
		515					520						525		
Ala	Val	Phe	Tyr	Leu	Ile	Ile	Phe	Phe	Phe	Leu	Ile	Pro	Leu	Thr	Val
	530					535						540			
Phe	Gly	Leu	Ser	Leu	Ala	Gly	Trp	Arg	Val	Leu	Val	Gly	Val	Gly	Val
545				550						555					560
Pro	Val	Val	Phe	Ile	Ile	Ile	Leu	Val	Leu	Cys	Leu	Arg	Leu	Leu	Gln
				565					570					575	

Ser Arg Cys Pro Arg Val Leu Pro Lys Lys Leu Gln Asn Trp Asn Phe  
 580 585 590  
 Leu Pro Leu Trp Met Arg Ser Leu Lys Pro Trp Asp Ala Val Val Ser  
 595 600 605  
 Lys Phe Thr Gly Cys Phe Gln Met Arg Cys Cys Cys Cys Arg Val  
 610 615 620  
 Cys Cys Arg Ala Cys Cys Leu Leu Cys Gly Cys Pro Lys Cys Cys Arg  
 625 630 635 640  
 Cys Ser Lys Cys Cys Glu Asp Leu Glu Glu Ala Gln Glu Gly Gln Asp  
 645 650 655  
 Val Pro Val Lys Ala Pro Glu Thr Phe Asp Asn Ile Thr Ile Ser Arg  
 660 665 670  
 Glu Ala Gln Gly Glu Val Pro Ala Ser Asp Ser Lys Thr Glu Cys Thr  
 675 680 685  
 Ala Leu  
 690

<210> 1294  
 <211> 404  
 <212> PRT  
 <213> Homo sapiens

<400> 1294  
 Met Ser Val Lys Pro Ser Trp Gly Pro Gly Pro Ser Glu Gly Val Thr  
 1 5 10 15  
 Ala Val Pro Thr Ser Asp Leu Gly Glu Ile His Asn Trp Thr Glu Leu  
 20 25 30  
 Leu Asp Leu Phe Asn His Thr Leu Ser Glu Cys His Val Glu Leu Ser  
 35 40 45  
 Gln Ser Thr Lys Arg Val Val Leu Phe Ala Leu Tyr Leu Ala Met Phe  
 50 55 60  
 Val Val Gly Leu Val Glu Asn Leu Leu Val Ile Cys Val Asn Trp Arg  
 65 70 75 80  
 Gly Ser Gly Arg Ala Gly Leu Met Asn Leu Tyr Ile Leu Asn Met Ala  
 85 90 95  
 Ile Ala Asp Leu Gly Ile Val Leu Ser Leu Pro Val Trp Met Leu Glu  
 100 105 110  
 Val Thr Leu Asp Tyr Thr Trp Leu Trp Gly Ser Phe Ser Cys Arg Phe  
 115 120 125  
 Thr His Tyr Phe Tyr Phe Val Asn Met Tyr Ser Ser Ile Phe Phe Leu  
 130 135 140  
 Val Cys Leu Ser Val Asp Arg Tyr Val Thr Leu Thr Ser Ala Ser Pro  
 145 150 155 160  
 Ser Trp Gln Arg Tyr Gln His Arg Val Arg Arg Ala Met Cys Ala Gly  
 165 170 175  
 Ile Trp Val Leu Ser Ala Ile Ile Pro Leu Pro Glu Val Val His Ile  
 180 185 190  
 Gln Leu Val Glu Gly Pro Glu Pro Met Cys Leu Phe Met Ala Pro Phe  
 195 200 205  
 Glu Thr Tyr Ser Thr Trp Ala Leu Ala Val Ala Leu Ser Thr Thr Ile  
 210 215 220  
 Leu Gly Phe Leu Leu Pro Phe Pro Leu Ile Thr Val Phe Asn Val Leu  
 225 230 235 240  
 Thr Ala Cys Arg Leu Arg Gln Pro Gly Gln Pro Lys Ser Arg Arg His  
 245 250 255  
 Cys Leu Leu Leu Cys Ala Tyr Val Ala Val Phe Val Met Cys Trp Leu  
 260 265 270  
 Pro Tyr His Val Thr Leu Leu Leu Leu Thr Leu His Gly Thr His Ile  
 275 280 285  
 Ser Leu His Cys His Leu Val His Leu Leu Tyr Phe Phe Tyr Asp Val  
 290 295 300

```

Ile Asp Cys Phe Ser Met Leu His Cys Val Ile Asn Pro Ile Leu Tyr
305          310          315          320
Asn Phe Leu Ser Pro His Phe Arg Gly Arg Leu Leu Asn Ala Val Val
          325          330          335
His Tyr Leu Pro Lys Asp Gln Thr Lys Ala Gly Thr Cys Ala Ser Ser
          340          345          350
Ser Ser Cys Ser Thr Gln His Ser Ile Ile Ile Thr Lys Gly Asp Ser
          355          360          365
Gln Pro Ala Ala Ala Ala Pro His Pro Glu Pro Ser Leu Ser Phe Gln
          370          375          380
Ala His His Leu Leu Pro Asn Thr Ser Pro Ile Ser Pro Thr Gln Pro
385          390          395          400
Leu Thr Pro Ser
          404

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<210> 1295
<211> 297
<212> PRT
<213> Homo sapiens

```

```

<400> 1295
Met Ala Ser Pro Gln Leu Cys Arg Ala Leu Val Ser Ala Gln Trp Val
1          5          10          15
Ala Glu Ala Leu Arg Ala Pro Arg Ala Gly Gln Pro Leu Gln Leu Leu
          20          25          30
Asp Ala Ser Trp Tyr Leu Pro Lys Leu Gly Arg Asp Ala Arg Arg Glu
          35          40          45
Phe Glu Glu Arg His Ile Pro Gly Ala Ala Phe Phe Asp Ile Asp Gln
          50          55          60
Cys Ser Asp Arg Thr Ser Pro Tyr Asp His Met Leu Pro Gly Ala Glu
          65          70          75          80
His Phe Ala Glu Tyr Ala Gly Arg Leu Gly Val Gly Ala Ala Thr His
          85          90          95
Val Val Ile Tyr Asp Ala Ser Asp Gln Gly Leu Tyr Ser Ala Pro Arg
          100          105          110
Val Trp Trp Met Phe Arg Ala Phe Gly His His Ala Val Ser Leu Leu
          115          120          125
Asp Gly Gly Leu Arg His Trp Leu Arg Gln Asn Leu Pro Leu Ser Ser
          130          135          140
Gly Lys Ser Gln Pro Ala Pro Ala Glu Phe Arg Ala Gln Leu Asp Pro
145          150          155          160
Ala Phe Ile Lys Thr Tyr Glu Asp Ile Lys Glu Asn Leu Glu Ser Arg
          165          170          175
Arg Phe Gln Val Val Asp Ser Arg Ala Thr Gly Arg Phe Arg Gly Thr
          180          185          190
Glu Pro Glu Pro Arg Asp Gly Ile Glu Pro Gly His Ile Pro Gly Thr
          195          200          205
Val Asn Ile Pro Phe Thr Asp Phe Leu Ser Gln Glu Gly Leu Glu Lys
          210          215          220
Ser Pro Glu Glu Ile Arg His Leu Phe Gln Glu Lys Lys Val Asp Leu
225          230          235          240
Ser Lys Pro Leu Val Ala Thr Cys Gly Ser Gly Val Thr Ala Cys His
          245          250          255
Val Ala Leu Gly Ala Tyr Leu Cys Gly Lys Pro Asp Val Pro Ile Tyr
          260          265          270
Asp Gly Ser Trp Val Glu Trp Tyr Met Arg Ala Arg Pro Glu Asp Val
          275          280          285
Ile Ser Glu Gly Arg Gly Lys Thr His
290          295          297

```

<210> 1296  
 <211> 445  
 <212> PRT  
 <213> Homo sapiens

<400> 1296  
 Met Arg Glu Ile Val His Ile Gln Ala Gly Gln Cys Gly Asn Gln Ile  
 1 5 10 15  
 Gly Ala Lys Phe Trp Glu Val Ile Ser Asp Glu His Gly Ile Asp Pro  
 20 25 30  
 Thr Gly Ser Tyr His Gly Asp Ser Asp Leu Gln Leu Glu Arg Ile Asn  
 35 40 45  
 Val Tyr Tyr Asn Glu Ala Ala Gly Asn Lys Tyr Val Pro Arg Ala Ile  
 50 55 60  
 Leu Val Asp Leu Glu Pro Gly Thr Met Asp Ser Val Arg Ser Gly Pro  
 65 70 75 80  
 Phe Gly Gln Ile Phe Arg Pro Asp Asn Phe Val Phe Gly Gln Ser Gly  
 85 90 95  
 Ala Gly Asn Asn Trp Ala Lys Gly His Tyr Thr Glu Gly Ala Glu Leu  
 100 105 110  
 Val Asp Ser Val Leu Asp Val Val Arg Lys Glu Ser Glu Ser Cys Asp  
 115 120 125  
 Cys Leu Gln Gly Phe Gln Leu Thr His Ser Leu Gly Gly Gly Thr Gly  
 130 135 140  
 Ser Gly Met Gly Thr Leu Leu Ile Ser Lys Ile Arg Glu Glu Tyr Pro  
 145 150 155 160  
 Asp Arg Ile Met Asn Thr Phe Ser Val Met Pro Ser Pro Lys Val Ser  
 165 170 175  
 Asp Thr Val Val Glu Pro Tyr Asn Ala Thr Leu Ser Val His Gln Leu  
 180 185 190  
 Val Glu Asn Thr Asp Glu Thr Tyr Ser Ile Asp Asn Glu Ala Leu Tyr  
 195 200 205  
 Asp Ile Cys Phe Arg Thr Leu Lys Leu Thr Thr Pro Thr Tyr Gly Asp  
 210 215 220  
 Leu Asn His Leu Val Ser Ala Thr Met Ser Gly Val Thr Thr Cys Leu  
 225 230 235 240  
 Arg Phe Pro Gly Gln Leu Asn Ala Asp Leu Arg Lys Leu Ala Val Asn  
 245 250 255  
 Met Val Pro Phe Pro Arg Leu His Phe Phe Met Pro Gly Phe Ala Pro  
 260 265 270  
 Leu Thr Ser Arg Gly Ser Gln Gln Tyr Arg Ala Leu Thr Val Pro Glu  
 275 280 285  
 Leu Thr Gln Gln Met Phe Asp Ser Lys Asn Met Met Ala Ala Cys Asp  
 290 295 300  
 Pro Arg His Gly Arg Tyr Leu Thr Val Ala Ala Ile Phe Arg Gly Arg  
 305 310 315 320  
 Met Ser Met Lys Glu Val Asp Glu Gln Met Leu Asn Val Gln Asn Lys  
 325 330 335  
 Asn Ser Ser Tyr Phe Val Glu Trp Ile Pro Asn Asn Val Lys Thr Ala  
 340 345 350  
 Val Cys Asp Ile Pro Pro Arg Gly Leu Lys Met Ser Ala Thr Phe Ile  
 355 360 365  
 Gly Asn Ser Thr Ala Ile Gln Glu Leu Phe Lys Arg Ile Ser Glu Gln  
 370 375 380  
 Phe Thr Ala Met Phe Arg Lys Ala Phe Leu His Trp Tyr Thr Gly  
 385 390 395 400  
 Glu Gly Met Asp Glu Met Glu Phe Thr Glu Ala Glu Ser Asn Met Asn  
 405 410 415  
 Asp Leu Val Ser Glu Tyr Gln Gln Tyr Gln Asp Ala Thr Ala Asp Glu  
 420 425 430  
 Gln Gly Glu Phe Glu Glu Glu Glu Gly Glu Asp Glu Ala  
 435 440 445

&lt;210&gt; 1297

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1297

```

Met Thr Pro Ser Glu Gly Ala Arg Ala Gly Thr Gly Arg Glu Leu Glu
 1          5          10          15
Met Leu Asp Ser Leu Leu Ala Leu Gly Gly Leu Val Leu Leu Arg Asp
          20          25          30
Ser Val Glu Trp Glu Gly Arg Ser Leu Leu Lys Ala Leu Val Lys Lys
          35          40          45
Ser Ala Leu Cys Gly Glu Gln Val His Ile Leu Gly Cys Glu Val Ser
          50          55          60
Glu Glu Glu Phe Arg Glu Gly Phe Asp Ser Asp Ile Asn Asn Arg Leu
          65          70          75          80
Val Tyr His Asp Phe Phe Arg Asp Pro Leu Asn Trp Ser Lys Thr Glu
          85          90          95
Glu Ala Phe Pro Gly Gly Pro Leu Gly Ala Leu Arg Ala Met Cys Lys
          100          105          110
Arg Thr Asp Pro Val Pro Val Thr Ile Ala Leu Asp Ser Leu Ser Trp
          115          120          125
Leu Leu Leu Arg Leu Pro Cys Thr Thr Leu Cys Gln Val Leu His Ala
          130          135          140
Val Ser His Gln Asp Ser Cys Pro Gly Glu Thr Pro Pro Ser Leu Phe
          145          150          155          160
Pro Leu Ile His Leu Pro Leu Pro Arg Ser Val Pro Leu Phe Leu Ser
          165          170          175
Thr Leu Glu *
          179

```

&lt;210&gt; 1298

&lt;211&gt; 270

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1298

```

Met Gly Gln Asn Asp Leu Met Gly Thr Ala Glu Asp Phe Ala Asp Gln
 1          5          10          15
Phe Leu Arg Val Thr Lys Gln Tyr Leu Pro His Val Ala Arg Leu Cys
          20          25          30
Leu Ile Ser Thr Phe Leu Glu Asp Gly Ile Arg Met Trp Phe Gln Trp
          35          40          45
Ser Glu Gln Arg Asp Tyr Ile Asp Thr Thr Trp Asn Cys Gly Tyr Leu
          50          55          60
Leu Ala Ser Ser Phe Val Phe Leu Asn Leu Leu Gly Gln Leu Thr Gly
          65          70          75          80
Cys Val Leu Val Leu Ser Arg Asn Phe Val Gln Tyr Ala Cys Phe Gly
          85          90          95
Leu Phe Gly Ile Ile Ala Leu Gln Thr Ile Ala Tyr Ser Ile Leu Trp
          100          105          110
Asp Leu Lys Phe Leu Met Arg Asn Leu Ala Leu Gly Gly Leu Leu
          115          120          125
Leu Leu Leu Ala Glu Ser Arg Ser Glu Gly Lys Ser Met Phe Ala Gly
          130          135          140
Val Pro Thr Met Arg Glu Ser Ser Pro Lys Gln Tyr Met Gln Leu Gly
          145          150          155          160

```

Gly Arg Val Leu Leu Val Leu Met Phe Met Thr Leu Leu His Phe Asp  
                           165                          170                          175  
 Ala Ser Phe Phe Ser Ile Val Gln Asn Ile Val Gly Thr Ala Leu Met  
                           180                          185                          190  
 Ile Leu Val Ala Ile Gly Phe Lys Thr Lys Leu Ala Ala Leu Thr Leu  
                           195                          200                          205  
 Val Val Trp Leu Phe Ala Ile Asn Val Tyr Phe Asn Ala Phe Trp Thr  
                           210                          215                          220  
 Ile Pro Val Tyr Lys Pro Met His Asp Phe Leu Lys Tyr Asp Phe Phe  
                           225                          230                          235                          240  
 Gln Thr Met Ser Val Ile Gly Gly Leu Leu Val Val Ala Leu Gly  
                           245                          250                          255  
 Pro Gly Gly Val Ser Met Asp Glu Lys Lys Lys Glu Trp \*  
                           260                          265                          269

&lt;210&gt; 1299

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1299

Met Leu Ala Tyr Asp Cys His Leu Thr Trp Lys Val His Leu Gly Ala  
   1                          5                          10                          15  
 Gly Gly Arg Ser Ala Gly Glu Phe Gly Ser His Phe Ser Pro His Val  
                           20                          25                          30  
 Ala Leu Glu Cys Glu Leu Ala His Ser Gly His Gln His Gly Ala Ser  
                           35                          40                          45  
 Thr Gly Thr Gly Gly Gln Pro Arg Ala Gln Ala Leu Ser Val Ser Phe  
                           50                          55                          60  
 Arg Ala Pro Gly Lys His Asp Ala Pro Ser Trp Glu Trp His Phe Ala  
                           65                          70                          75                          80  
 Tyr His Thr Gly Cys Pro Gly Ser Gln Ala Asp Trp Ile Val Thr Cys  
                           85                          90                          95  
 Gly Val His Ala Ala Ala Cys Ala Leu Gln Trp Thr Cys Gly Pro Phe  
                           100                          105                          110  
 Leu Lys Val His Asn Lys \*  
                           115                          118

&lt;210&gt; 1300

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1300

Met Leu Gly Leu Gln Thr Gln Val Tyr Leu Met Leu Asp Leu His Leu  
   1                          5                          10                          15  
 Leu Ser His Cys Val Thr Leu Ser Leu Arg Arg Val Arg Leu Trp Val  
                           20                          25                          30  
 Ser Arg Leu Gln Arg Gln Val Thr His Val Arg Ser Ser Gly Gln Asn  
                           35                          40                          45  
 Gln Arg Glu Gly Trp Ser Arg Val Leu Glu Met Arg  
                           50                          55                          60

&lt;210&gt; 1301

&lt;211&gt; 231

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1301

```

Met Thr Thr Asn Ala Gly Pro Leu His Pro Tyr Trp Pro Gln His Leu
 1          5          10          15
Arg Leu Asp Asn Phe Val Pro Asn Asp Arg Pro Thr Trp His Ile Leu
          20          25          30
Ala Gly Leu Phe Ser Val Thr Gly Val Leu Val Val Thr Thr Trp Leu
          35          40          45
Leu Ser Gly Arg Ala Ala Val Val Pro Leu Gly Thr Trp Arg Arg Leu
          50          55          60
Ser Leu Cys Trp Phe Ala Val Cys Gly Phe Ile His Leu Val Ile Glu
          65          70          75          80
Gly Trp Phe Val Leu Tyr Tyr Glu Asp Leu Leu Gly Asp Gln Ala Phe
          85          90          95
Leu Ser Gln Leu Trp Lys Glu Tyr Ala Lys Gly Asp Ser Arg Tyr Ile
          100          105          110
Leu Gly Asp Asn Phe Thr Val Cys Met Glu Thr Ile Thr Ala Cys Leu
          115          120          125
Trp Gly Pro Leu Ser Leu Trp Val Val Ile Ala Phe Leu Arg Gln His
          130          135          140
Pro Leu Arg Phe Ile Leu Gln Leu Val Val Ser Val Gly Gln Ile Tyr
          145          150          155          160
Gly Asp Val Leu Tyr Phe Leu Thr Glu His Arg Asp Gly Phe Gln His
          165          170          175
Gly Glu Leu Gly His Pro Leu Tyr Phe Trp Phe Tyr Phe Val Phe Met
          180          185          190
Asn Ala Leu Trp Leu Val Leu Pro Gly Val Leu Val Leu Asp Ala Val
          195          200          205
Lys His Leu Thr His Ala Gln Ser Thr Leu Asp Ala Lys Ala Thr Lys
          210          215          220
Ala Lys Ser Lys Lys Asn *
          225          230

```

&lt;210&gt; 1302

&lt;211&gt; 63

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1302

```

Met Ser Tyr Leu Asp Ser Val Ala Ser Lys Leu Leu Gln Met Val Lys
 1          5          10          15
Lys Leu Ser Gln Ser Phe Cys Ser Asn Phe Lys Tyr Leu Thr Lys Tyr
          20          25          30
Ser Arg Lys Gln Val Ser Asp Glu Ile Lys Lys Ser Arg Arg Thr Val
          35          40          45
Glu Ser Asn Pro Ile Phe Phe Lys Lys Asn Lys Lys Ile Gln *
          50          55          60          62

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&lt;210&gt; 1303

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1303

```

Met Tyr Ile Pro Val Thr Gln Gly Asp Met Pro Gly Glu Met Arg Ile
 1          5          10          15

```



```

Phe Phe Phe Phe Phe Arg Tyr Phe Phe Ile Ile Lys His Ser Val Pro
    20          25          30
Arg Asp Gly Pro Gly Thr Ser Leu Glu Ile Phe His Leu Leu Thr Ser
    35          40          45
Glu Glu Ser Lys Phe Pro Thr Val Ser Ala Thr Gly Arg Ala Thr Pro
    50          55          60
Ser Thr Cys Pro Leu Ala Asp Pro Cys Leu Pro Ser Ala Gly Cys Cys
    65          70          75          80
Trp Arg Gln Val Gln Leu His *
          85          87

```

<210> 1304  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

```

<400> 1304
Met Ile Ile Lys Cys Lys Ile Leu Leu Phe Leu Leu Asp Ser Cys Tyr
  1          5          10          15
Ile Met Ile Ile Val Leu Gln Phe Ile Val His Asn Met Lys Asn Asn
    20          25          30
Tyr Asp Ser Leu Gln Ser Gly Gln Gly Glu Ala Ala Tyr Thr Thr Ser
    35          40          45
Ala Val Arg Gly Thr Cys Gly Asp Ser Ser Gly Val Ala Ala Gln Gly
    50          55          60
Ala Leu Glu Arg Ala Gln His Pro Cys Cys Pro Pro Ala Glu Pro Val
    65          70          75          80
Leu Arg Glu Cys Arg Thr Asp Ala Asp Ala Leu Gly Glu Ile Ser Ser
          85          90          95
Ile Glu Arg Lys Gly Val Gln Cys Leu Ala Val Ile Leu *
    100          105          109

```

<210> 1305  
 <211> 446  
 <212> PRT  
 <213> Homo sapiens

```

<400> 1305
Met Ser Glu Leu Thr Lys Glu Leu Met Glu Leu Val Trp Gly Thr Lys
  1          5          10          15
Ser Ser Pro Gly Leu Ser Asp Thr Ile Phe Cys Arg Trp Thr Gln Gly
    20          25          30
Phe Val Phe Ser Glu Ser Glu Gly Ser Ala Leu Glu Gln Phe Glu Gly
    35          40          45
Gly Pro Cys Ala Val Ile Ala Pro Val Gln Ala Phe Leu Leu Lys Lys
    50          55          60
Leu Leu Phe Ser Ser Glu Lys Ser Ser Trp Arg Asp Cys Ser Glu Glu
    65          70          75          80
Glu Gln Lys Glu Leu Leu Cys His Thr Leu Cys Asp Ile Leu Glu Ser
          85          90          95
Ala Cys Cys Asp His Ser Gly Ser Tyr Cys Leu Val Ser Trp Leu Arg
    100          105          110
Gly Lys Thr Thr Glu Glu Thr Ala Ser Ile Ser Gly Ser Pro Ala Glu
    115          120          125
Ser Ser Cys Gln Val Glu His Ser Ser Ala Leu Ala Val Glu Glu Leu
    130          135          140
Gly Phe Glu Arg Phe His Ala Leu Ile Gln Lys Arg Ser Phe Arg Ser
    145          150          155          160

```

Leu Pro Glu Leu Lys Asp Ala Val Leu Asp Gln Tyr Ser Met Trp Gly  
 165 170 175  
 Asn Lys Phe Gly Val Leu Leu Phe Leu Tyr Ser Val Leu Leu Thr Lys  
 180 185 190  
 Gly Ile Glu Asn Ile Lys Asn Glu Ile Glu Asp Ala Ser Glu Pro Leu  
 195 200 205  
 Ile Asp Pro Val Tyr Gly His Gly Ser Gln Ser Leu Ile Asn Leu Leu  
 210 215 220  
 Leu Thr Gly His Ala Val Ser Asn Val Trp Asp Gly Asp Arg Glu Cys  
 225 230 235 240  
 Ser Gly Met Lys Leu Glu Gly Ile His Glu Gln Ala Ala Val Gly Phe  
 245 250 255  
 Leu Thr Leu Met Glu Ala Leu Arg Tyr Cys Lys Val Gly Ser Tyr Leu  
 260 265 270  
 Lys Ser Pro Lys Phe Pro Ile Trp Ile Val Gly Ser Glu Thr His Leu  
 275 280 285  
 Thr Val Phe Phe Ala Lys Asp Met Ala Leu Val Ala Pro Glu Ala Pro  
 290 295 300  
 Ser Glu Gln Ala Arg Arg Val Phe Gln Thr Tyr Asp Pro Glu Asp Asn  
 305 310 315 320  
 Gly Phe Ile Pro Asp Ser Leu Leu Glu Asp Val Met Lys Ala Leu Asp  
 325 330 335  
 Leu Val Ser Asp Pro Glu Tyr Ile Asn Leu Met Lys Asn Lys Leu Asp  
 340 345 350  
 Pro Glu Gly Leu Gly Ile Ile Leu Leu Gly Pro Phe Leu Gln Glu Phe  
 355 360 365  
 Phe Pro Asp Gln Gly Ser Ser Gly Pro Glu Ser Phe Thr Val Tyr His  
 370 375 380  
 Tyr Asn Gly Leu Lys Gln Ser Asn Tyr Asn Glu Lys Val Met Tyr Val  
 385 390 395 400  
 Glu Gly Thr Ala Val Val Met Gly Phe Glu Asp Pro Met Leu Gln Thr  
 405 410 415  
 Asp Asp Thr Pro Ile Lys Arg Cys Leu Gln Thr Lys Trp Pro Tyr Ile  
 420 425 430  
 Glu Leu Leu Trp Thr Thr Asp Arg Ser Pro Ser Leu Asn \*  
 435 440 445

&lt;210&gt; 1306

&lt;211&gt; 337

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1306

Met Glu Lys Leu Arg Leu Leu Gly Leu Arg Tyr Gln Glu Tyr Val Thr  
 1 5 10 15  
 Arg His Pro Ala Ala Thr Ala Gln Leu Glu Thr Ala Val Arg Gly Phe  
 20 25 30  
 Ser Tyr Leu Leu Ala Gly Arg Phe Ala Asp Ser His Glu Leu Ser Glu  
 35 40 45  
 Leu Val Tyr Ser Ala Ser Asn Leu Leu Val Leu Leu Asn Asp Gly Ile  
 50 55 60  
 Leu Arg Lys Glu Leu Arg Lys Lys Leu Pro Val Ser Leu Ser Gln Gln  
 65 70 75 80  
 Lys Leu Leu Thr Trp Leu Ser Val Leu Glu Cys Val Glu Val Phe Met  
 85 90 95  
 Glu Met Gly Ala Ala Lys Val Trp Gly Glu Val Gly Arg Trp Leu Val  
 100 105 110  
 Ile Ala Leu Ile Gln Leu Ala Lys Ala Val Leu Arg Met Leu Leu Leu  
 115 120 125  
 Leu Trp Phe Lys Ala Gly Leu Gln Thr Ser Pro Pro Ile Val Pro Leu  
 130 135 140

Asp Arg Glu Thr Gln Ala Gln Pro Pro Asp Gly Asp His Ser Pro Gly  
 145 150 155 160  
 Asn His Glu Gln Ser Tyr Val Gly Lys Arg Ser Asn Arg Val Val Arg  
 165 170 175  
 Thr Leu Gln Asn Thr Pro Ser Leu His Ser Arg His Trp Gly Ala Pro  
 180 185 190  
 Gln Gln Arg Glu Gly Arg Gln Gln Gln His His Glu Glu Leu Ser Ala  
 195 200 205  
 Thr Pro Thr Pro Leu Gly Leu Gln Glu Thr Ile Ala Glu Phe Leu Tyr  
 210 215 220  
 Ile Ala Arg Pro Leu Leu His Leu Leu Ser Leu Gly Leu Trp Gly Gln  
 225 230 235 240  
 Arg Ser Trp Lys Pro Trp Leu Leu Ala Gly Val Val Asp Val Thr Ser  
 245 250 255  
 Leu Ser Leu Leu Ser Asp Arg Lys Gly Leu Thr Arg Arg Glu Arg Arg  
 260 265 270  
 Glu Leu Arg Arg Arg Thr Ile Leu Leu Tyr Tyr Leu Leu Arg Ser  
 275 280 285  
 Pro Phe Tyr Asp Arg Phe Ser Glu Ala Arg Ile Leu Phe Leu Leu Gln  
 290 295 300  
 Leu Leu Ala Asp His Val Pro Gly Val Gly Leu Val Thr Arg Pro Leu  
 305 310 315 320  
 Met Asp Tyr Leu Pro Thr Trp Gln Lys Ile Tyr Phe Tyr Ser Trp Gly  
 325 330 335 336

\*

<210> 1307  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 1307  
 Met Gln Val Ala Ala His Asn Leu Glu Phe Ala Leu Ser Phe Cys Ser  
 1 5 10 15  
 Cys Ser Ile Cys Lys Lys Lys Gln Asn Arg His Phe Ile Val Pro Ala  
 20 25 30  
 Ser Arg Phe Lys Leu Leu Lys Gly Ala Glu His Ile Thr Thr Tyr Thr  
 35 40 45  
 Phe Asn Thr His Lys Ala Gln His Thr Phe Cys Lys Arg Cys Gly Val  
 50 55 60  
 Gln Ser Phe Tyr Thr Pro Arg Ser Asn Pro Gly Gly Phe Gly Ile Ala  
 65 70 75 80  
 Pro His Cys Leu Asp Glu Gly Thr Val Arg Ser Met Val Thr Glu Glu  
 85 90 95  
 Phe Asn Gly Ser Asp Trp Glu Lys Ala Met Lys Glu His Lys Thr Ile  
 100 105 110  
 Lys Asn Met Ser Lys Glu \*  
 115 118

<210> 1308  
 <211> 53  
 <212> PRT  
 <213> Homo sapiens

<400> 1308  
 Met Arg Gln Leu Leu Leu Ser Lys Ala Ile Gly Thr Leu Gly Lys Ala  
 1 5 10 15

Asn Arg His Val Val Glu Thr Ser Thr Ser Ser Glu Glu Ile Cys Cys  
 20 25 30  
 Arg Gly Arg Asn Ser Arg Glu Pro Ser Gln Arg Arg Gln Ser Glu Leu  
 35 40 45  
 Gly Met Glu Gly \*  
 50 52

<210> 1309  
 <211> 716  
 <212> PRT  
 <213> Homo sapiens

<400> 1309  
 Met Glu Leu Ala Asp Val Gly Ala Ala Ala Ser Ser Gln Gly Val His  
 1 5 10 15  
 Asp Gln Val Leu Pro Thr Pro Asn Ala Ser Ser Arg Val Ile Val His  
 20 25 30  
 Val Asp Leu Asp Cys Phe Tyr Ala Gln Val Glu Met Ile Ser Asn Pro  
 35 40 45  
 Glu Leu Lys Asp Lys Pro Leu Gly Val Gln Gln Lys Tyr Leu Val Val  
 50 55 60  
 Thr Cys Asn Tyr Glu Ala Arg Lys Leu Gly Val Lys Lys Leu Met Asn  
 65 70 75 80  
 Val Arg Asp Ala Lys Glu Lys Cys Pro Gln Leu Val Leu Val Asn Gly  
 85 90 95  
 Glu Asp Leu Thr Arg Tyr Arg Glu Met Ser Tyr Lys Val Thr Glu Leu  
 100 105 110  
 Leu Glu Glu Phe Ser Pro Val Val Glu Arg Leu Gly Phe Asp Glu Asn  
 115 120 125  
 Phe Val Asp Leu Thr Glu Met Val Glu Arg Arg Leu Gln Gln Leu Gln  
 130 135 140  
 Ser Asp Glu Leu Ser Ala Val Thr Val Ser Gly His Val Tyr Asn Asn  
 145 150 155 160  
 Gln Ser Ile Asn Leu Leu Asp Val Leu His Ile Arg Leu Leu Val Gly  
 165 170 175  
 Ser Gln Ile Ala Ala Glu Met Arg Glu Ala Met Tyr Asn Gln Leu Gly  
 180 185 190  
 Leu Thr Gly Cys Ala Gly Val Ala Ser Asn Lys Leu Leu Ala Lys Leu  
 195 200 205  
 Val Ser Gly Val Phe Lys Pro Asn Gln Gln Thr Val Leu Leu Pro Glu  
 210 215 220  
 Ser Cys Gln His Leu Ile His Ser Leu Asn His Ile Lys Glu Ile Pro  
 225 230 235 240  
 Gly Ile Gly Tyr Lys Thr Ala Lys Cys Leu Glu Ala Leu Gly Ile Asn  
 245 250 255  
 Ser Val Arg Asp Leu Gln Thr Phe Ser Pro Lys Ile Leu Glu Lys Glu  
 260 265 270  
 Leu Gly Ile Ser Val Ala Gln Arg Ile Gln Lys Leu Ser Phe Gly Glu  
 275 280 285  
 Asp Asn Ser Pro Val Ile Leu Ser Gly Pro Pro Gln Ser Phe Ser Glu  
 290 295 300  
 Glu Asp Ser Phe Lys Lys Cys Ser Ser Glu Val Glu Ala Lys Asn Lys  
 305 310 315 320  
 Ile Glu Glu Leu Leu Ala Ser Leu Leu Asn Arg Val Cys Gln Asp Gly  
 325 330 335  
 Arg Lys Pro His Thr Val Arg Leu Ile Ile Arg Arg Tyr Ser Ser Glu  
 340 345 350  
 Lys His Tyr Gly Arg Glu Ser Arg Gln Cys Pro Ile Pro Ser His Val  
 355 360 365  
 Ile Gln Lys Leu Gly Thr Gly Asn Tyr Asp Val Met Thr Pro Met Val  
 370 375 380

```

Asp Ile Leu Met Lys Leu Phe Arg Asn Met Val Asn Val Lys Met Pro
385          390          395          400
Phe His Leu Thr Leu Leu Ser Val Cys Phe Cys Asn Leu Lys Ala Leu
          405          410          415
Asn Thr Ala Lys Lys Gly Leu Ile Asp Tyr Tyr Leu Met Pro Ser Leu
          420          425          430
Ser Thr Thr Ser Arg Ser Gly Lys His Ser Phe Lys Met Lys Asp Thr
          435          440          445
His Met Glu Asp Phe Pro Lys Asp Lys Glu Thr Asn Arg Asp Phe Leu
          450          455          460
Pro Ser Gly Arg Ile Glu Ser Thr Arg Thr Arg Glu Ser Pro Leu Asp
465          470          475          480
Thr Thr Asn Phe Ser Lys Glu Lys Asp Ile Asn Glu Phe Pro Leu Cys
          485          490          495
Ser Leu Pro Glu Gly Val Asp Gln Glu Val Phe Lys Gln Leu Pro Val
          500          505          510
Asp Ile Gln Glu Glu Ile Leu Ser Gly Lys Ser Arg Glu Lys Phe Gln
          515          520          525
Gly Lys Gly Ser Val Ser Cys Pro Leu His Ala Ser Arg Gly Val Leu
          530          535          540
Ser Phe Phe Ser Lys Lys Gln Met Gln Asp Ile Pro Ile Asn Pro Arg
545          550          555          560
Asp His Leu Ser Ser Ser Lys Gln Val Ser Ser Val Ser Pro Cys Glu
          565          570          575
Pro Gly Thr Ser Gly Phe Asn Ser Ser Ser Ser Tyr Met Ser Ser
          580          585          590
Gln Lys Asp Tyr Ser Tyr Tyr Leu Asp Asn Arg Leu Lys Asp Glu Arg
          595          600          605
Ile Ser Gln Gly Pro Lys Glu Pro Gln Gly Phe His Phe Thr Asn Ser
          610          615          620
Asn Pro Ala Val Ser Ala Phe His Ser Phe Pro Asn Leu Gln Ser Glu
625          630          635          640
Gln Leu Phe Ser Arg Asn His Thr Thr Asp Ser His Lys Gln Thr Val
          645          650          655
Ala Thr Asp Ser His Glu Gly Leu Thr Glu Asn Arg Glu Pro Asp Ser
          660          665          670
Val Asp Glu Lys Ile Thr Phe Pro Ser Asp Ile Asp Pro Gln Val Phe
          675          680          685
Tyr Glu Leu Pro Glu Ala Val Gln Lys Glu Leu Leu Ala Glu Trp Lys
          690          695          700
Arg Thr Gly Ser Asp Phe His Ile Gly His Lys *
705          710          715

```

&lt;210&gt; 1310

&lt;211&gt; 286

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1310

```

Met Ala Ala Glu Thr Arg Asn Val Ala Gly Ala Glu Ala Pro Pro Pro
1          5          10          15
Gln Lys Arg Tyr Tyr Arg Gln Arg Ala His Ser Asn Pro Met Ala Asp
          20          25          30
His Thr Leu Arg Tyr Pro Val Lys Pro Glu Glu Met Asp Trp Ser Glu
          35          40          45
Leu Tyr Pro Glu Phe Phe Ala Pro Leu Thr Gln Asn Gln Ser His Asp
          50          55          60
Asp Pro Lys Asp Lys Lys Glu Lys Arg Ala Gln Ala Gln Val Glu Phe
          65          70          75          80
Ala Asp Ile Gly Cys Gly Tyr Gly Gly Leu Leu Val Glu Leu Ser Pro
          85          90          95

```

```

Leu Phe Pro Asp Thr Leu Ile Leu Gly Leu Glu Ile Arg Val Lys Val
      100      105      110
Ser Asp Tyr Val Gln Asp Arg Ile Arg Ala Leu Arg Ala Ala Pro Ala
      115      120      125
Gly Gly Phe Gln Asn Ile Ala Cys Leu Arg Ser Asn Ala Met Lys His
      130      135      140
Leu Pro Asn Phe Phe Tyr Lys Gly Gln Leu Thr Lys Met Phe Phe Leu
145      150      155      160
Phe Pro Asp Pro His Phe Lys Arg Thr Lys His Lys Trp Arg Ile Ile
      165      170      175
Ser Pro Thr Leu Leu Ala Glu Tyr Ala Tyr Val Leu Arg Val Gly Val
      180      185      190
Ser Trp Asp Arg Arg Asp Asp Gly Gly Leu Val Tyr Thr Ile Thr Asp
      195      200      205
Val Leu Glu Leu His Asp Trp Met Cys Thr His Phe Glu Glu His Pro
      210      215      220
Leu Phe Glu Arg Val Pro Leu Glu Asp Leu Ser Glu Asp Pro Val Val
225      230      235      240
Gly His Leu Gly Thr Ser Thr Glu Glu Gly Lys Lys Val Leu Arg Asn
      245      250      255
Gly Gly Lys Asn Phe Pro Ala Ile Phe Arg Arg Ile Gln Asp Pro Val
      260      265      270
Leu Gln Ala Val Thr Ser Gln Thr Ser Leu Pro Gly His *
      275      280      285

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<210> 1311
<211> 932
<212> PRT
<213> Homo sapiens

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```

<400> 1311
Met Ala Ser Pro Pro Arg Gly Trp Gly Cys Gly Glu Leu Leu Leu Pro
  1      5      10      15
Phe Met Leu Leu Gly Thr Leu Cys Glu Pro Gly Ser Gly Gln Ile Arg
      20      25      30
Tyr Ser Met Pro Glu Glu Leu Asp Lys Gly Ser Phe Val Gly Asn Ile
      35      40      45
Ala Lys Asp Leu Gly Leu Glu Pro Gln Glu Leu Ala Glu Arg Gly Val
      50      55      60
Arg Ile Val Ser Arg Gly Arg Thr Gln Leu Phe Ala Leu Asn Pro Arg
      65      70      75      80
Ser Gly Ser Leu Val Thr Ala Gly Arg Ile Asp Arg Glu Glu Leu Cys
      85      90      95
Ala Gln Ser Pro Leu Cys Val Val Asn Phe Asn Ile Leu Val Glu Asn
      100      105      110
Lys Met Lys Ile Tyr Gly Val Glu Val Glu Ile Ile Asp Ile Asn Asp
      115      120      125
Asn Phe Pro Arg Phe Arg Asp Glu Glu Leu Lys Val Lys Val Asn Glu
      130      135      140
Asn Ala Ala Ala Gly Thr Arg Leu Val Leu Pro Phe Ala Arg Asp Ala
145      150      155      160
Asp Val Gly Val Asn Ser Leu Arg Ser Tyr Gln Leu Ser Ser Asn Leu
      165      170      175
His Phe Ser Leu Asp Val Val Ser Gly Thr Asp Gly Gln Lys Tyr Pro
      180      185      190
Glu Leu Val Leu Glu Gln Pro Leu Asp Arg Glu Lys Glu Thr Val His
      195      200      205
Asp Leu Leu Leu Thr Ala Leu Asp Gly Gly Asp Pro Val Leu Ser Gly
      210      215      220
Thr Thr His Ile Arg Val Thr Val Leu Asp Ala Asn Asp Asn Ala Pro
225      230      235      240

```

Leu Phe Thr Pro Ser Glu Tyr Ser Val Ser Val Pro Glu Asn Ile Pro  
 245 250 255  
 Val Gly Thr Arg Leu Leu Met Leu Thr Ala Thr Asp Pro Asp Glu Gly  
 260 265 270  
 Ile Asn Gly Lys Leu Thr Tyr Ser Phe Arg Asn Glu Glu Lys Ile  
 275 280 285  
 Ser Glu Thr Phe Gln Leu Asp Ser Asn Leu Gly Glu Ile Ser Thr Leu  
 290 295 300  
 Gln Ser Leu Asp Tyr Glu Glu Ser Arg Phe Tyr Leu Met Glu Val Val  
 305 310 315 320  
 Ala Gln Asp Gly Gly Ala Leu Val Ala Ser Ala Lys Val Val Val Thr  
 325 330 335  
 Val Gln Asp Val Asn Asp Asn Ala Pro Glu Val Ile Leu Thr Ser Leu  
 340 345 350  
 Thr Ser Ser Ile Ser Glu Asp Cys Leu Pro Gly Thr Val Ile Ala Leu  
 355 360 365  
 Phe Ser Val His Asp Gly Asp Ser Gly Glu Asn Gly Glu Ile Ala Cys  
 370 375 380  
 Ser Ile Pro Arg Asn Leu Pro Phe Lys Leu Glu Lys Ser Val Asp Asn  
 385 390 395 400  
 Tyr Tyr His Leu Leu Thr Thr Arg Asp Leu Asp Arg Glu Glu Thr Ser  
 405 410 415  
 Asp Tyr Asn Ile Thr Leu Thr Val Met Asp His Gly Thr Pro Pro Leu  
 420 425 430  
 Ser Thr Glu Ser His Ile Pro Leu Lys Val Ala Asp Val Asn Asp Asn  
 435 440 445  
 Pro Pro Asn Phe Pro Gln Ala Ser Tyr Ser Thr Ser Val Thr Glu Asn  
 450 455 460  
 Asn Pro Arg Gly Val Ser Ile Phe Ser Val Thr Ala His Asp Pro Asp  
 465 470 475 480  
 Ser Gly Asp Asn Ala Arg Val Thr Tyr Ser Leu Ala Glu Asp Thr Phe  
 485 490 495  
 Gln Gly Ala Pro Leu Ser Ser Tyr Val Ser Ile Asn Ser Asp Thr Gly  
 500 505 510  
 Val Leu Tyr Ala Leu Arg Ser Phe Asp Tyr Glu Gln Leu Arg Asp Leu  
 515 520 525  
 Gln Leu Trp Val Thr Ala Ser Asp Ser Gly Asn Pro Pro Leu Ser Ser  
 530 535 540  
 Asn Val Ser Leu Ser Leu Phe Val Leu Asp Gln Asn Asp Asn Thr Pro  
 545 550 555 560  
 Glu Ile Leu Tyr Pro Ala Leu Pro Thr Asp Gly Ser Thr Gly Val Glu  
 565 570 575  
 Leu Ala Pro Arg Ser Ala Glu Pro Gly Tyr Leu Val Thr Lys Val Val  
 580 585 590  
 Ala Val Asp Lys Asp Ser Gly Gln Asn Ala Trp Leu Ser Tyr Arg Leu  
 595 600 605  
 Leu Lys Ala Ser Glu Pro Gly Leu Phe Ala Val Gly Leu His Thr Gly  
 610 615 620  
 Glu Val Arg Thr Ala Arg Ala Leu Leu Asp Arg Asp Ala Leu Lys Gln  
 625 630 635 640  
 Ser Leu Val Val Ala Val Glu Asp His Gly Gln Pro Pro Leu Ser Ala  
 645 650 655  
 Thr Phe Thr Val Thr Val Ala Val Ala Asp Arg Ile Pro Asp Ile Leu  
 660 665 670  
 Ala Asp Leu Gly Ser Ile Lys Thr Pro Ile Asp Pro Glu Asp Leu Asp  
 675 680 685  
 Leu Thr Leu Tyr Leu Val Val Ala Val Ala Val Ser Cys Val Phe  
 690 695 700  
 Leu Ala Phe Val Ile Val Leu Leu Val Leu Arg Leu Arg Arg Trp His  
 705 710 715 720  
 Lys Ser Arg Leu Leu Gln Ala Glu Gly Ser Arg Leu Ala Gly Val Pro  
 725 730 735  
 Ala Ser His Phe Val Gly Val Asp Gly Val Arg Ala Phe Leu Gln Thr  
 740 745 750

Tyr Ser His Glu Val Ser Leu Thr Ala Asp Ser Arg Lys Ser His Leu  
           755                  760          765  
 Ile Phe Pro Gln Pro Asn Tyr Ala Asp Thr Leu Leu Ser Glu Glu Ser  
       770                  775          780  
 Cys Glu Lys Ser Glu Pro Leu Leu Met Ser Asp Lys Val Asp Ala Asn  
 785                  790          795          800  
 Lys Glu Glu Arg Arg Val Gln Gln Ala Pro Pro Asn Thr Asp Trp Arg  
                   805          810          815  
 Phe Ser Gln Ala Gln Arg Pro Gly Thr Ser Gly Ser Gln Asn Gly Asp  
                   820          825          830  
 Asp Thr Gly Thr Trp Pro Asn Asn Gln Phe Asp Thr Glu Met Leu Gln  
       835                  840          845  
 Ala Met Ile Leu Ala Ser Ala Ser Glu Ala Ala Asp Gly Ser Ser Thr  
       850                  855          860  
 Leu Gly Gly Gly Ala Gly Thr Met Gly Leu Ser Ala Arg Tyr Gly Pro  
 865                  870          875          880  
 Gln Phe Thr Leu Gln His Val Pro Asp Tyr Arg Gln Asn Val Tyr Ile  
                   885          890          895  
 Pro Gly Ser Asn Ala Thr Leu Thr Asn Ala Ala Gly Lys Arg Asp Gly  
                   900          905          910  
 Lys Ala Pro Ala Gly Gly Asn Gly Asn Lys Lys Lys Ser Gly Lys Lys  
           915                  920          925  
 Glu Lys Lys \*  
       930 931

<210> 1312  
 <211> 375  
 <212> PRT  
 <213> Homo sapiens

<400> 1312  
 Met Ser Ser His Lys Gly Ser Val Val Ala Gln Gly Asn Gly Ala Pro  
   1          5          10          15  
 Ala Ser Asn Arg Glu Ala Asp Thr Val Glu Leu Ala Glu Leu Gly Pro  
       20          25          30  
 Leu Leu Glu Glu Lys Gly Lys Arg Val Ile Ala Asn Pro Pro Lys Ala  
       35          40          45  
 Glu Glu Glu Gln Thr Cys Pro Val Pro Gln Glu Glu Glu Glu Val  
       50          55          60  
 Arg Val Leu Thr Leu Pro Leu Gln Ala His His Ala Met Glu Lys Met  
       65          70          75          80  
 Glu Glu Phe Val Tyr Lys Val Trp Glu Gly Arg Trp Arg Val Ile Pro  
           85          90          95  
 Tyr Asp Val Leu Pro Asp Trp Leu Lys Asp Asn Asp Tyr Leu Leu His  
           100          105          110  
 Gly His Arg Pro Pro Met Pro Ser Phe Arg Ala Cys Phe Lys Ser Ile  
       115          120          125  
 Phe Arg Ile His Thr Glu Thr Gly Asn Ile Trp Thr His Leu Leu Gly  
       130          135          140  
 Phe Val Leu Phe Leu Phe Leu Gly Ile Leu Thr Met Leu Arg Pro Asn  
       145          150          155          160  
 Met Tyr Phe Met Ala Pro Leu Gln Glu Lys Val Val Phe Gly Met Phe  
           165          170          175  
 Phe Leu Gly Ala Val Leu Cys Leu Ser Phe Ser Trp Leu Phe His Thr  
           180          185          190  
 Val Tyr Cys His Ser Glu Lys Val Ser Arg Thr Phe Ser Lys Leu Asp  
       195          200          205  
 Tyr Ser Gly Ile Ala Leu Leu Ile Met Gly Ser Phe Val Pro Trp Leu  
       210          215          220  
 Tyr Tyr Ser Phe Tyr Cys Ser Pro Gln Pro Arg Leu Ile Tyr Leu Ser  
       225          230          235          240



Ile Val Cys Val Leu Gly Ile Ser Ala Ile Ile Val Ala Gln Trp Asp  
 245 250 255  
 Arg Phe Ala Thr Pro Lys His Arg Gln Thr Arg Ala Gly Val Phe Leu  
 260 265 270  
 Gly Leu Gly Leu Ser Gly Val Val Pro Thr Met His Phe Thr Ile Ala  
 275 280 285  
 Glu Gly Phe Val Lys Ala Thr Thr Val Gly Gln Met Gly Trp Phe Phe  
 290 295 300  
 Leu Met Ala Val Met Tyr Ile Thr Gly Ala Gly Leu Tyr Ala Ala Arg  
 305 310 315 320  
 Ile Pro Glu Arg Phe Phe Pro Gly Lys Phe Asp Ile Trp Phe Gln Ser  
 325 330 335  
 His Gln Ile Phe His Val Leu Val Val Ala Ala Ala Phe Val His Phe  
 340 345 350  
 Tyr Gly Val Ser Asn Leu Gln Glu Phe Arg Tyr Gly Leu Glu Gly Gly  
 355 360 365  
 Cys Thr Asp Asp Thr Leu Leu  
 370 375

<210> 1313  
 <211> 158  
 <212> PRT  
 <213> Homo sapiens

<400> 1313  
 Met Asn Gln Glu Lys Leu Ala Lys Leu Gln Ala Gln Val Arg Ile Gly  
 1 5 10 15  
 Gly Lys Gly Thr Ala Arg Arg Lys Lys Val Val His Arg Thr Ala  
 20 25 30  
 Thr Ala Asp Asp Lys Lys Leu Gln Ser Ser Leu Lys Lys Leu Ala Val  
 35 40 45  
 Asn Asn Ile Ala Gly Ile Glu Glu Val Asn Met Ile Lys Asp Asp Gly  
 50 55 60  
 Thr Val Ile His Phe Asn Asn Pro Lys Val Gln Ala Ser Leu Ser Ala  
 65 70 75 80  
 Asn Thr Phe Ala Ile Thr Gly His Ala Glu Ala Lys Pro Ile Thr Glu  
 85 90 95  
 Met Leu Pro Gly Ile Leu Ser Gln Leu Gly Ala Asp Ser Leu Thr Ser  
 100 105 110  
 Leu Arg Lys Leu Ala Glu Gln Phe Pro Arg Gln Val Leu Asp Ser Lys  
 115 120 125  
 Ala Pro Lys Pro Glu Asp Ile Asp Glu Glu Asp Asp Val Pro Asp  
 130 135 140  
 Leu Val Glu Asn Phe Asp Glu Ala Ser Lys Asn Glu Ala Asn  
 145 150 155 158

<210> 1314  
 <211> 269  
 <212> PRT  
 <213> Homo sapiens

<400> 1314  
 Met Leu Leu Lys Glu Tyr Arg Ile Cys Met Pro Leu Thr Val Asp Glu  
 1 5 10 15  
 Tyr Lys Ile Gly Gln Leu Tyr Met Ile Ser Lys His Ser His Glu Gln  
 20 25 30  
 Ser Asp Arg Gly Glu Gly Val Glu Val Val Gln Asn Glu Pro Phe Glu  
 35 40 45

```

Asp Pro His His Gly Asn Gly Gln Phe Thr Glu Lys Arg Val Tyr Leu
  50          55          60
Asn Ser Lys Leu Pro Ser Trp Ala Arg Ala Val Val Pro Lys Ile Phe
  65          70          75          80
Tyr Val Thr Glu Lys Ala Trp Asn Tyr Tyr Pro Tyr Thr Ile Thr Glu
          85          90          95
Tyr Thr Cys Ser Phe Leu Pro Lys Phe Ser Ile His Ile Glu Thr Lys
          100          105          110
Tyr Glu Asp Asn Lys Gly Ser Asn Asp Thr Ile Phe Asp Asn Glu Ala
          115          120          125
Lys Asp Val Glu Arg Glu Val Cys Phe Ile Asp Ile Ala Cys Asp Glu
          130          135          140
Ile Pro Glu Arg Tyr Tyr Lys Glu Ser Glu Asp Pro Lys His Phe Lys
          145          150          155          160
Ser Glu Lys Thr Gly Arg Gly Gln Leu Arg Glu Gly Trp Arg Asp Ser
          165          170          175
His Gln Pro Ile Met Cys Ser Tyr Lys Leu Val Thr Val Lys Phe Glu
          180          185          190
Val Trp Gly Leu Gln Thr Arg Val Glu Gln Phe Val His Lys Val Val
          195          200          205
Arg Asp Ile Leu Leu Ile Gly His Arg Gln Ala Phe Ala Trp Val Asp
          210          215          220
Glu Trp Tyr Asp Met Thr Met Asp Asp Val Arg Glu Tyr Glu Lys Asn
          225          230          235          240
Met His Glu Gln Thr Asn Ile Lys Val Cys Asn Gln His Ser Ser Pro
          245          250          255
Val Asp Asp Ile Glu Ser His Ala Gln Thr Ser Thr *
          260          265          268

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<210> 1315
<211> 105
<212> PRT
<213> Homo sapiens

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```

<400> 1315
Met Gly Lys Glu Ser Gly Trp Asp Ser Gly Arg Ala Ala Val Ala Ala
  1          5          10          15
Val Val Gly Gly Val Val Ala Val Gly Thr Val Leu Val Ala Leu Ser
          20          25          30
Ala Met Gly Phe Thr Ser Val Gly Ile Ala Ala Ser Ser Ile Ala Ala
          35          40          45
Lys Met Met Ser Thr Ala Ala Ile Ala Asn Gly Gly Gly Val Ala Ala
          50          55          60
Gly Ser Leu Val Ala Ile Leu Gln Ser Val Gly Ala Ala Gly Leu Ser
          65          70          75          80
Val Thr Ser Lys Val Ile Gly Gly Phe Ala Gly Thr Ala Leu Gly Ala
          85          90          95
Trp Leu Gly Ser Pro Pro Ser Ser *
          100          104

```

```

<210> 1316
<211> 127
<212> PRT
<213> Homo sapiens

```

```

<400> 1316
Met Ser Val Met Asp Leu Ala Asn Thr Cys Ser Ser Phe Gln Ser Asp
  1          5          10          15

```

```

Leu Asp Phe Cys Ser Asp Cys Gly Ser Val Leu Pro Leu Pro Gly Ala
      20      25      30
Gln Asp Thr Val Thr Cys Ile Arg Cys Gly Phe Asn Ile Asn Val Arg
      35      40      45
Asp Phe Glu Gly Lys Val Val Lys Thr Ser Val Val Phe His Gln Leu
      50      55      60
Gly Thr Ala Met Pro Met Ser Val Glu Glu Gly Pro Glu Cys Gln Gly
      65      70      75      80
Pro Val Val Asp Arg Arg Cys Pro Arg Cys Gly His Glu Gly Met Ala
      85      90      95
Tyr His Thr Arg Gln Met Arg Ser Ala Asp Glu Gly Gln Thr Val Phe
      100      105      110
Tyr Thr Cys Thr Asn Cys Lys Phe Gln Glu Lys Glu Asp Ser *
      115      120      125 126

```

&lt;210&gt; 1317

&lt;211&gt; 461

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1317

```

Met Ala Asn Asp Pro Leu Glu Gly Phe His Glu Val Asn Leu Ala Ser
  1      5      10      15
Pro Thr Ser Pro Asp Leu Leu Gly Val Tyr Glu Ser Gly Thr Gln Glu
      20      25      30
Gln Thr Thr Ser Pro Ser Val Ile Tyr Arg Pro His Pro Ser Ala Leu
      35      40      45
Ser Ser Val Pro Ile Gln Ala Asn Ala Leu Asp Val Ser Glu Leu Pro
      50      55      60
Thr Gln Pro Val Tyr Ser Ser Pro Arg Arg Leu Asn Cys Ala Glu Ile
      65      70      75      80
Ser Ser Ile Ser Phe His Val Thr Asp Pro Ala Pro Cys Ser Thr Ser
      85      90      95
Gly Val Thr Ala Gly Leu Thr Lys Leu Thr Thr Arg Lys Asp Asn Tyr
      100      105      110
Asn Ala Glu Arg Glu Phe Leu Gln Gly Ala Thr Ile Thr Glu Ala Cys
      115      120      125
Asp Gly Ser Asp Asp Ile Phe Gly Leu Ser Thr Asp Ser Leu Ser Arg
      130      135      140
Leu Arg Ser Pro Ser Val Leu Glu Val Arg Glu Lys Gly Tyr Glu Arg
      145      150      155      160
Leu Lys Glu Glu Leu Ala Lys Ala Gln Arg Glu Leu Lys Leu Lys Asp
      165      170      175
Glu Glu Cys Glu Arg Leu Ser Lys Val Arg Asp Gln Leu Gly Gln Glu
      180      185      190
Leu Glu Glu Leu Thr Ala Ser Leu Phe Glu Glu Ala His Lys Met Val
      195      200      205
Arg Glu Ala Asn Ile Lys Gln Ala Thr Ala Glu Lys Gln Leu Lys Glu
      210      215      220
Ala Gln Gly Lys Ile Asp Val Leu Gln Ala Glu Val Ala Ala Leu Lys
      225      230      235      240
Thr Leu Val Leu Ser Ser Ser Pro Thr Ser Pro Thr Gln Glu Pro Leu
      245      250      255
Pro Gly Gly Lys Thr Pro Phe Lys Lys Gly His Thr Arg Asn Lys Ser
      260      265      270
Thr Ser Ser Ala Met Ser Gly Ser His His Asp Leu Ser Val Ile Gln
      275      280      285
Pro Ile Val Lys Asp Cys Lys Glu Ala Asp Leu Ser Leu Tyr Asn Glu
      290      295      300
Phe Arg Leu Trp Lys Asp Glu Pro Thr Met Asp Arg Thr Cys Pro Phe
      305      310      315      320

```

```

Leu Asp Lys Ile Tyr Gln Glu Asp Ile Phe Pro Cys Leu Thr Phe Ser
      325      330      335
Lys Ser Glu Leu Ala Ser Ala Val Leu Glu Ala Val Glu Asn Asn Thr
      340      345      350
Leu Ser Ile Glu Pro Val Gly Leu Gln Pro Ile Arg Phe Val Lys Ala
      355      360      365
Ser Ala Val Glu Cys Gly Gly Pro Lys Lys Cys Ala Leu Thr Gly Gln
      370      375      380
Ser Lys Ser Cys Lys His Arg Ile Lys Leu Gly Asp Ser Ser Asn Tyr
      385      390      395      400
Tyr Tyr Ile Ser Pro Phe Cys Arg Tyr Arg Ile Thr Ser Val Cys Asn
      405      410      415
Phe Phe Thr Tyr Ile Arg Tyr Ile Gln Gln Gly Leu Val Lys Gln Gln
      420      425      430
Asp Val Asp Gln Met Phe Trp Glu Val Met Gln Leu Arg Lys Glu Met
      435      440      445
Ser Leu Ala Lys Leu Gly Tyr Phe Lys Glu Glu Leu *
      450      455      460

```

<210> 1318  
 <211> 191  
 <212> PRT  
 <213> Homo sapiens

```

<400> 1318
Met Ala Ala Gly Glu Leu Glu Gly Gly Lys Pro Leu Ser Gly Leu Leu
  1      5      10      15
Asn Ala Leu Ala Gln Asp Thr Phe His Gly Tyr Pro Gly Ile Thr Glu
      20      25      30
Glu Leu Leu Arg Ser Gln Leu Tyr Pro Glu Val Pro Pro Glu Glu Phe
      35      40      45
Arg Pro Phe Leu Ala Lys Met Arg Gly Ile Leu Lys Ser Ile Ala Ser
      50      55      60
Ala Asp Met Asp Phe Asn Gln Leu Glu Ala Phe Leu Thr Ala Gln Thr
      65      70      75      80
Lys Lys Gln Gly Gly Ile Thr Ser Asp Gln Ala Ala Val Ile Ser Lys
      85      90      95
Phe Trp Lys Ser His Lys Thr Lys Ile Arg Glu Ser Leu Met Asn Gln
      100      105      110
Ser Arg Trp Asn Ser Gly Leu Arg Gly Leu Ser Trp Arg Val Asp Gly
      115      120      125
Lys Ser Gln Ser Arg His Ser Ala Gln Ile His Thr Pro Val Ala Ile
      130      135      140
Ile Glu Leu Glu Leu Gly Lys Tyr Gly Gln Glu Ser Glu Phe Leu Cys
      145      150      155      160
Leu Glu Phe Asp Glu Val Lys Val Asn Gln Ile Leu Lys Thr Leu Ser
      165      170      175
Glu Val Glu Glu Ser Ile Ser Thr Leu Ile Ser Gln Pro Asn *
      180      185      190

```

<210> 1319  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

```

<400> 1319
Met Ala Lys His His Pro Asp Leu Ile Phe Cys Arg Lys Gln Ala Gly
  1      5      10      15

```

```

Val Ala Ile Gly Arg Leu Cys Glu Lys Cys Asp Gly Lys Cys Val Ile
      20              25              30
Cys Asp Ser Tyr Val Arg Pro Cys Thr Leu Val Arg Ile Cys Asp Glu
      35              40              45
Cys Asn Tyr Gly Ser Tyr Gln Gly Arg Cys Val Ile Cys Gly Gly Pro
      50              55              60
Gly Val Ser Asp Ala Tyr Tyr Cys Lys Glu Cys Thr Ile Gln Glu Lys
      65              70              75              80
Asp Arg Asp Gly Cys Pro Lys Ile Val Asn Leu Gly Ser Ser Lys Thr
      85              90              95
Asp Leu Phe Tyr Glu Arg Lys Lys Tyr Gly Phe Lys Lys Arg *
      100              105              110

```

```

<210> 1320
<211> 126
<212> PRT
<213> Homo sapiens

```

```

<400> 1320
Met Lys Leu Leu Thr His Asn Leu Leu Ser Ser His Val Arg Gly Val
  1              5              10              15
Gly Ser Arg Gly Phe Pro Leu Arg Leu Gln Ala Thr Glu Val Arg Ile
      20              25              30
Cys Pro Val Glu Phe Asn Pro Asn Phe Val Ala Arg Met Ile Pro Lys
      35              40              45
Val Glu Trp Ser Ala Phe Leu Glu Ala Ala Asp Asn Leu Arg Leu Ile
      50              55              60
Gln Val Pro Lys Gly Pro Val Glu Gly Tyr Glu Asn Glu Glu Phe
      65              70              75              80
Leu Arg Thr Met His His Leu Leu Leu Glu Val Glu Val Ile Glu Gly
      85              90              95
Thr Leu Gln Cys Pro Glu Ser Gly Arg Met Phe Pro Ile Ser Arg Gly
      100              105              110
Ile Pro Asn Met Leu Leu Ser Glu Glu Glu Thr Glu Ser *
      115              120              125

```

```

<210> 1321
<211> 530
<212> PRT
<213> Homo sapiens

```

```

<400> 1321
Met Asp Ser Val Ala Phe Glu Asp Val Ala Val Ser Phe Thr Gln Glu
  1              5              10              15
Glu Trp Ala Leu Leu Asp Pro Ser Gln Lys Asn Leu Tyr Arg Asp Val
      20              25              30
Met Gln Glu Thr Phe Lys Asn Leu Thr Ser Val Gly Lys Thr Trp Lys
      35              40              45
Val Gln Asn Ile Glu Asp Glu Tyr Lys Asn Pro Arg Arg Asn Leu Ser
      50              55              60
Leu Met Arg Glu Lys Leu Cys Glu Ser Lys Glu Ser His His Cys Gly
      65              70              75              80
Glu Ser Phe Asn Gln Ile Ala Asp Asp Met Leu Asn Arg Lys Thr Leu
      85              90              95
Pro Gly Ile Thr Pro Cys Glu Ser Ser Val Cys Gly Glu Val Gly Thr
      100              105              110
Gly His Ser Ser Leu Asn Thr His Ile Arg Ala Asp Thr Gly His Lys
      115              120              125

```

Ser Ser Glu Tyr Gln Glu Tyr Gly Glu Asn Pro Tyr Arg Asn Lys Glu  
 130 135 140  
 Cys Lys Lys Ala Phe Ser Tyr Leu Asp Ser Phe Gln Ser His Asp Lys  
 145 150 155 160  
 Ala Cys Thr Lys Glu Lys Pro Tyr Asp Gly Lys Glu Cys Thr Glu Thr  
 165 170 175  
 Phe Ile Ser His Ser Cys Ile Gln Arg His Arg Val Met His Ser Gly  
 180 185 190  
 Asp Gly Pro Tyr Lys Cys Lys Phe Cys Gly Lys Ala Phe Tyr Phe Leu  
 195 200 205  
 Asn Leu Cys Leu Ile His Glu Arg Ile His Thr Gly Val Lys Pro Tyr  
 210 215 220  
 Lys Cys Lys Gln Cys Gly Lys Ala Phe Thr Arg Ser Thr Thr Leu Pro  
 225 230 235 240  
 Val His Glu Arg Thr His Thr Gly Val Asn Ala Asp Glu Cys Lys Glu  
 245 250 255  
 Cys Gly Asn Ala Phe Ser Phe Pro Ser Glu Ile Arg Arg His Lys Arg  
 260 265 270  
 Ser His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Gln Cys Gly Lys Val  
 275 280 285  
 Phe Ile Ser Phe Ser Ser Ile Gln Tyr His Lys Met Thr His Thr Gly  
 290 295 300  
 Glu Lys Pro Tyr Glu Cys Lys Gln Cys Gly Lys Ala Phe Arg Cys Gly  
 305 310 315 320  
 Ser His Leu Gln Lys His Gly Arg Thr His Thr Gly Glu Lys Pro Tyr  
 325 330 335  
 Glu Cys Arg Gln Cys Gly Lys Ala Phe Arg Cys Thr Ser Asp Leu Gln  
 340 345 350  
 Arg His Glu Lys Thr His Thr Glu Asp Lys Pro Tyr Gly Cys Lys Gln  
 355 360 365  
 Cys Gly Lys Gly Phe Arg Cys Ala Ser Gln Leu Gln Ile His Glu Arg  
 370 375 380  
 Thr His Ser Gly Glu Lys Pro His Glu Cys Lys Glu Cys Gly Lys Val  
 385 390 395 400  
 Phe Lys Tyr Phe Ser Ser Leu Arg Ile His Glu Arg Thr His Thr Gly  
 405 410 415  
 Glu Lys Pro His Glu Cys Lys Gln Cys Gly Lys Ala Phe Arg Tyr Phe  
 420 425 430  
 Ser Ser Leu His Ile His Glu Arg Thr His Thr Gly Asp Lys Pro Tyr  
 435 440 445  
 Glu Cys Lys Val Cys Gly Lys Ala Phe Thr Cys Ser Ser Ser Ile Arg  
 450 455 460  
 Tyr His Glu Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Lys His  
 465 470 475 480  
 Cys Gly Lys Ala Phe Ile Ser Asn Tyr Ile Arg Tyr His Glu Arg Thr  
 485 490 495  
 His Thr Gly Glu Lys Pro Tyr Gln Cys Lys Gln Cys Gly Lys Ala Phe  
 500 505 510  
 Ile Arg Ala Ser Ser Cys Arg Glu His Glu Arg Thr His Thr Ile Asn  
 515 520 525  
 Arg \*  
 529

<210> 1322  
 <211> 24  
 <212> PRT  
 <213> Homo sapiens

<400> 1322  
 Met Ala Asn Tyr Ile His Val Pro Pro Gly Ser Pro Glu Val Pro Lys  
 1 5 10 15

Leu Asn Val Thr Val Gln Asp Gln  
20 24

<210> 1323  
<211> 4  
<212> PRT  
<213> Homo sapiens

<400> 1323  
Met Leu Pro Phe  
1 4

<210> 1324  
<211> 1379  
<212> PRT  
<213> Homo sapiens

<400> 1324  
Met Asn Arg Pro Gly Ile Pro Ala Ala Ser Ala Ser Ser Thr Asn Leu  
1 5 10 15  
Ile His Leu Ser Ser Lys Gly His Ile Ser Pro Ala Lys Asp Thr Ser  
20 25 30  
Leu Gln Gln Arg Thr Pro Ala Glu Met Ser Pro Val Leu His Phe Tyr  
35 40 45  
Val Arg Pro Ser Gly His Glu Gly Ala Ala Ser Gly His Thr Arg Arg  
50 55 60  
Lys Leu Gln Gly Lys Leu Pro Glu Leu Gln Gly Val Glu Thr Glu Leu  
65 70 75 80  
Cys Tyr Asn Val Asn Trp Thr Ala Glu Ala Leu Pro Ser Ala Glu Glu  
85 90 95  
Thr Lys Lys Leu Met Trp Leu Phe Gly Cys Pro Leu Leu Leu Asp Asp  
100 105 110  
Val Ala Arg Glu Ser Trp Leu Leu Pro Gly Ser Asn Asp Leu Leu Leu  
115 120 125  
Glu Val Gly Pro Arg Leu Asn Phe Ser Thr Pro Thr Ser Thr Asn Ile  
130 135 140  
Val Ser Val Cys Arg Ala Thr Gly Leu Gly Pro Val Asp Arg Val Glu  
145 150 155 160  
Thr Thr Arg Arg Tyr Arg Leu Ser Phe Ala His Pro Pro Ser Ala Glu  
165 170 175  
Val Glu Ala Ile Ala Leu Ala Thr Leu His Asp Arg Met Thr Glu Gln  
180 185 190  
His Phe Pro His Pro Ile Gln Ser Phe Ser Pro Glu Ser Met Pro Glu  
195 200 205  
Pro Leu Asn Gly Pro Ile Asn Ile Leu Gly Glu Gly Arg Leu Ala Leu  
210 215 220  
Glu Lys Ala Asn Gln Glu Leu Gly Leu Ala Leu Asp Ser Trp Asp Leu  
225 230 235 240  
Asp Phe Tyr Thr Lys Arg Phe Gln Glu Leu Gln Arg Asn Pro Ser Thr  
245 250 255  
Val Glu Ala Phe Asp Leu Ala Gln Ser Asn Ser Glu His Ser Arg His  
260 265 270  
Trp Phe Phe Lys Gly Gln Leu His Val Asp Gly Gln Lys Leu Val His  
275 280 285  
Ser Leu Phe Glu Ser Ile Met Ser Thr Gln Glu Ser Ser Asn Pro Asn  
290 295 300  
Asn Val Leu Lys Phe Cys Asp Asn Ser Ser Ala Ile Gln Gly Lys Glu  
305 310 315 320

Val	Arg	Phe	Leu	Arg	Pro	Glu	Asp	Pro	Thr	Arg	Pro	Ser	Arg	Phe	Gln
				325						330				335	
Gln	Gln	Gln	Gly	Leu	Arg	His	Val	Val	Phe	Thr	Ala	Glu	Thr	His	Asn
			340						345					350	
Phe	Pro	Thr	Gly	Val	Cys	Pro	Phe	Ser	Gly	Ala	Thr	Thr	Gly	Thr	Gly
			355						360					365	
Gly	Arg	Ile	Arg	Asp	Val	Gln	Cys	Thr	Gly	Arg	Gly	Ala	His	Val	Val
			370						375					380	
Ala	Gly	Thr	Ala	Gly	Tyr	Cys	Phe	Gly	Asn	Leu	His	Ile	Pro	Gly	Tyr
															400
Asn	Leu	Pro	Trp	Glu	Asp	Leu	Ser	Phe	Gln	Tyr	Pro	Gly	Asn	Phe	Ala
				405						410					415
Arg	Pro	Leu	Glu	Val	Ala	Ile	Glu	Ala	Ser	Asn	Gly	Ala	Ser	Asp	Tyr
				420						425				430	
Gly	Asn	Lys	Phe	Gly	Glu	Pro	Val	Leu	Ala	Gly	Phe	Ala	Arg	Ser	Leu
			435							440				445	
Gly	Leu	Gln	Leu	Pro	Asp	Gly	Gln	Arg	Arg	Glu	Trp	Ile	Lys	Pro	Ile
			450												
Met	Phe	Ser	Gly	Gly	Ile	Gly	Ser	Met	Glu	Ala	Asp	His	Ile	Ser	Lys
															480
Glu	Ala	Pro	Glu	Pro	Gly	Met	Glu	Val	Val	Lys	Val	Gly	Gly	Pro	Val
															495
Tyr	Arg	Ile	Gly	Val	Gly	Gly	Gly	Ala	Ala	Ser	Ser	Val	Gln	Val	Gln
				500						505				510	
Gly	Asp	Asn	Thr	Ser	Asp	Leu	Asp	Phe	Gly	Ala	Val	Gln	Arg	Gly	Asp
				515											
Pro	Glu	Met	Glu	Gln	Lys	Met	Asn	Arg	Val	Ile	Arg	Ala	Cys	Val	Glu
Ala	Pro	Lys	Gly	Asn	Pro	Ile	Cys	Ser	Leu	His	Asp	Gln	Gly	Ala	Gly
															560
Gly	Asn	Gly	Asn	Val	Leu	Lys	Glu	Leu	Ser	Asp	Pro	Ala	Gly	Ala	Ile
				565						570					575
Ile	Tyr	Thr	Ser	Arg	Phe	Gln	Leu	Gly	Asp	Pro	Thr	Leu	Asn	Ala	Leu
				580						585				590	
Glu	Ile	Trp	Gly	Ala	Glu	Tyr	Gln	Glu	Ser	Asn	Ala	Leu	Leu	Leu	Arg
				595										605	
Ser	Pro	Asn	Arg	Asp	Phe	Leu	Thr	His	Val	Ser	Ala	Arg	Glu	Arg	Cys
Pro	Ala	Cys	Phe	Val	Gly	Thr	Ile	Thr	Gly	Asp	Arg	Arg	Ile	Val	Leu
															640
Val	Asp	Asp	Arg	Glu	Cys	Pro	Val	Arg	Arg	Asn	Gly	Gln	Gly	Asp	Ala
															655
Pro	Pro	Thr	Pro	Pro	Pro	Thr	Pro	Val	Asp	Leu	Glu	Leu	Glu	Trp	Val
															670
Leu	Gly	Lys	Met	Pro	Arg	Lys	Glu	Phe	Phe	Leu	Gln	Arg	Lys	Pro	Pro
															685
Met	Leu	Gln	Pro	Leu	Ala	Leu	Pro	Pro	Gly	Leu	Ser	Val	His	Gln	Ala
															700
Leu	Glu	Arg	Val	Leu	Arg	Leu	Pro	Ala	Val	Ala	Ser	Lys	Arg	Tyr	Leu
															720
Thr	Asn	Lys	Val	Asp	Arg	Ser	Val	Gly	Gly	Leu	Val	Ala	Gln	Gln	Gln
															735
Cys	Val	Gly	Pro	Leu	Gln	Thr	Pro	Leu	Ala	Asp	Val	Ala	Val	Val	Ala
															750
Leu	Ser	His	Glu	Glu	Leu	Ile	Gly	Ala	Ala	Thr	Ala	Leu	Gly	Glu	Gln
															765
Pro	Val	Lys	Ser	Leu	Leu	Asp	Pro	Lys	Val	Ala	Ala	Arg	Leu	Ala	Val
															780
Ala	Glu	Ala	Leu	Thr	Asn	Leu	Val	Phe	Ala	Leu	Val	Thr	Asp	Leu	Arg
															800
Asp	Val	Lys	Cys	Ser	Gly	Asn	Trp	Met	Trp	Ala	Ala	Lys	Leu	Pro	Gly
															815
Glu	Gly	Ala	Ala	Leu	Ala	Asp	Ala	Cys	Glu	Ala	Met	Val	Ala	Val	Met
															830



Ala Ala Leu Gly Val Ala Val Asp Gly Gly Lys Asp Ser Leu Ser Met  
 835 840 845  
 Ala Ala Arg Val Gly Thr Glu Thr Val Arg Ala Pro Gly Ser Leu Val  
 850 855 860  
 Ile Ser Ala Tyr Ala Val Cys Pro Asp Ile Thr Ala Thr Val Thr Pro  
 865 870 875 880  
 Asp Leu Lys His Pro Glu Gly Arg Gly His Leu Leu Tyr Val Ala Leu  
 885 890 895  
 Ser Pro Gly Gln His Arg Leu Gly Gly Thr Ala Leu Ala Gln Cys Phe  
 900 905 910  
 Ser Gln Leu Gly Glu His Pro Pro Asp Leu Asp Leu Pro Glu Asn Leu  
 915 920 925  
 Val Arg Ala Phe Ser Ile Thr Gln Gly Leu Leu Lys Asp Arg Leu Leu  
 930 935 940  
 Cys Ser Gly His Asp Val Ser Asp Gly Gly Leu Val Thr Cys Leu Leu  
 945 950 955 960  
 Glu Met Ala Phe Ala Gly Asn Cys Gly Leu Gln Val Asp Val Pro Val  
 965 970 975  
 Pro Arg Val Asp Val Leu Ser Val Leu Phe Ala Glu Glu Pro Gly Leu  
 980 985 990  
 Val Leu Glu Val Gln Glu Pro Asp Leu Ala Gln Val Leu Lys Arg Tyr  
 995 1000 1005  
 Arg Asp Ala Gly Leu His Cys Leu Glu Leu Gly His Thr Gly Glu Ala  
 1010 1015 1020  
 Gly Pro His Ala Met Val Arg Val Ser Val Asn Gly Ala Val Val Leu  
 1025 1030 1035 1040  
 Glu Glu Pro Val Gly Glu Leu Arg Ala Leu Trp Glu Glu Thr Ser Phe  
 1045 1050 1055  
 Gln Leu Asp Arg Leu Gln Ala Glu Pro Arg Cys Val Ala Glu Glu Glu  
 1060 1065 1070  
 Arg Gly Leu Arg Glu Arg Met Gly Pro Ser Tyr Cys Leu Pro Pro Thr  
 1075 1080 1085  
 Phe Pro Lys Ala Ser Val Pro Arg Glu Pro Gly Gly Pro Ser Pro Arg  
 1090 1095 1100  
 Val Ala Ile Leu Arg Glu Glu Gly Ser Asn Gly Asp Arg Glu Met Ala  
 1105 1110 1115 1120  
 Asp Ala Phe His Leu Ala Gly Phe Glu Val Trp Asp Val Thr Met Gln  
 1125 1130 1135  
 Asp Leu Cys Ser Gly Ala Ile Gly Leu Asp Thr Phe Arg Gly Val Ala  
 1140 1145 1150  
 Phe Val Gly Gly Phe Ser Tyr Ala Asp Val Leu Gly Ser Ala Lys Gly  
 1155 1160 1165  
 Trp Ala Ala Ala Val Thr Phe His Pro Arg Ala Gly Ala Glu Leu Arg  
 1170 1175 1180  
 Arg Phe Arg Lys Arg Pro Asp Thr Phe Ser Leu Gly Val Cys Asn Gly  
 1185 1190 1195 1200  
 Cys Gln Leu Leu Ala Leu Leu Gly Trp Val Gly Gly Asp Pro Asn Glu  
 1205 1210 1215  
 Asp Ala Ala Glu Met Gly Pro Asp Ser Gln Pro Ala Arg Pro Gly Leu  
 1220 1225 1230  
 Leu Leu Arg His Asn Leu Ser Gly Arg Tyr Glu Ser Arg Trp Ala Ser  
 1235 1240 1245  
 Val Arg Val Gly Pro Gly Pro Ala Leu Met Leu Arg Gly Met Glu Gly  
 1250 1255 1260  
 Ala Val Leu Pro Val Trp Ser Ala His Gly Glu Gly Tyr Val Ala Phe  
 1265 1270 1275 1280  
 Ser Ser Pro Glu Leu Gln Ala Gln Ile Glu Ala Arg Gly Leu Ala Pro  
 1285 1290 1295  
 Leu His Trp Ala Asp Asp Asp Gly Asn Pro Thr Glu Gln Tyr Pro Leu  
 1300 1305 1310  
 Asn Pro Asn Gly Ser Pro Gly Gly Val Ala Gly Ile Cys Ser Cys Asp  
 1315 1320 1325  
 Gly Arg His Leu Ala Val Met Pro His Pro Glu Arg Ala Val Arg Pro  
 1330 1335 1340

Trp Gln Trp Ala Trp Arg Pro Pro Pro Phe Asp Thr Leu Thr Thr Ser  
 1345 1350 1355 1360  
 Pro Trp Leu Gln Leu Phe Ile Asn Ala Arg Asn Trp Thr Leu Glu Gly  
 1365 1370 1375  
 Ser Cys \*  
 1378

<210> 1325  
 <211> 184  
 <212> PRT  
 <213> Homo sapiens

<400> 1325  
 Met Ala Ser Arg Ala Gly Pro Arg Ala Ala Gly Thr Asp Gly Ser Asp  
 1 5 10 15  
 Phe Gln His Arg Glu Arg Val Ala Met His Tyr Gln Met Ser Val Thr  
 20 25 30  
 Leu Lys Tyr Glu Ile Lys Lys Leu Ile Tyr Val His Leu Val Ile Trp  
 35 40 45  
 Leu Leu Leu Val Ala Lys Met Ser Val Gly His Leu Arg Leu Leu Ser  
 50 55 60  
 His Asp Gln Val Ala Met Pro Tyr Gln Trp Glu Tyr Pro Tyr Leu Leu  
 65 70 75 80  
 Ser Ile Leu Pro Ser Leu Leu Gly Leu Leu Ser Phe Pro Arg Asn Asn  
 85 90 95  
 Ile Ser Tyr Leu Val Leu Ser Met Ile Ser Met Gly Leu Phe Ser Ile  
 100 105 110  
 Ala Pro Leu Ile Tyr Gly Ser Met Glu Met Phe Pro Ala Ala Gln Gln  
 115 120 125  
 Leu Tyr Arg His Gly Lys Ala Tyr Arg Phe Leu Phe Gly Phe Ser Ala  
 130 135 140  
 Val Ser Ile Met Tyr Leu Val Leu Val Leu Ala Val Gln Val His Ala  
 145 150 155 160  
 Trp Gln Leu Tyr Tyr Ser Lys Lys Leu Leu Asp Ser Trp Phe Thr Ser  
 165 170 175  
 Thr Gln Glu Lys Lys His Lys \*  
 180 183

<210> 1326  
 <211> 552  
 <212> PRT  
 <213> Homo sapiens

<400> 1326  
 Met Ala Ala Pro Val Arg Leu Gly Arg Lys Arg Pro Leu Pro Ala Cys  
 1 5 10 15  
 Pro Asn Pro Leu Phe Val Arg Trp Leu Thr Glu Trp Arg Asp Glu Ala  
 20 25 30  
 Thr Arg Ser Arg His Arg Thr Arg Phe Val Phe Gln Lys Ala Leu Arg  
 35 40 45  
 Ser Leu Arg Arg Tyr Pro Leu Pro Leu Arg Ser Gly Lys Glu Ala Lys  
 50 55 60  
 Ile Leu Gln His Phe Gly Asp Gly Leu Cys Arg Met Leu Asp Glu Arg  
 65 70 75 80  
 Leu Gln Arg His Arg Thr Ser Gly Gly Asp His Ala Pro Asp Ser Pro  
 85 90 95  
 Ser Gly Glu Asn Ser Pro Ala Pro Gln Gly Arg Leu Ala Glu Val Gln  
 100 105 110

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Asp Ser Ser Met Pro Val Pro Ala Gln Pro Lys Ala Gly Gly Ser Gly
    115                      120                      125
Ser Tyr Trp Pro Ala Arg His Ser Gly Ala Arg Val Ile Leu Leu Val
    130                      135                      140
Leu Tyr Arg Glu His Leu Asn Pro Asn Gly His His Phe Leu Thr Lys
    145                      150                      155                      160
Glu Glu Leu Leu Gln Arg Cys Ala Gln Lys Ser Pro Arg Val Ala Pro
    165                      170                      175
Gly Ser Ala Pro Pro Trp Pro Ala Leu Arg Ser Leu Leu His Arg Asn
    180                      185                      190
Leu Val Leu Arg Thr His Gln Pro Ala Arg Tyr Ser Leu Thr Pro Glu
    195                      200                      205
Gly Leu Glu Leu Ala Gln Lys Leu Ala Glu Ser Glu Gly Leu Ser Leu
    210                      215                      220
Leu Asn Val Gly Ile Gly Pro Lys Glu Pro Pro Gly Glu Glu Thr Ala
    225                      230                      235                      240
Val Pro Gly Ala Ala Ser Ala Glu Leu Ala Ser Glu Ala Gly Val Gln
    245                      250                      255
Gln Gln Pro Leu Glu Leu Arg Pro Gly Glu Tyr Arg Val Leu Leu Cys
    260                      265                      270
Val Asp Ile Gly Glu Thr Arg Gly Gly His Arg Pro Glu Leu Leu
    275                      280                      285
Arg Glu Leu Gln Arg Leu His Val Thr His Thr Val Arg Lys Leu His
    290                      295                      300
Val Gly Asp Phe Val Trp Val Ala Gln Glu Thr Asn Pro Arg Asp Pro
    305                      310                      315                      320
Ala Asn Pro Gly Glu Leu Val Leu Asp His Ile Val Glu Arg Lys Arg
    325                      330                      335
Leu Asp Asp Leu Cys Ser Ser Ile Ile Asp Gly Arg Phe Arg Glu Gln
    340                      345                      350
Lys Phe Arg Leu Lys Arg Cys Gly Leu Glu Arg Arg Val Tyr Leu Val
    355                      360                      365
Glu Glu His Gly Ser Val His Asn Leu Ser Leu Pro Glu Ser Thr Leu
    370                      375                      380
Leu Gln Ala Val Thr Asn Thr Gln Val Ile Asp Gly Phe Phe Val Lys
    385                      390                      395                      400
Arg Thr Ala Asp Ile Lys Glu Ser Ala Ala Tyr Leu Ala Leu Leu Thr
    405                      410                      415
Arg Gly Leu Gln Arg Leu Tyr Gln Gly His Thr Leu Arg Ser Arg Pro
    420                      425                      430
Trp Gly Thr Pro Gly Asn Pro Glu Ser Gly Ala Met Thr Ser Pro Asn
    435                      440                      445
Pro Leu Cys Ser Leu Leu Thr Phe Ser Asp Phe Asn Ala Gly Ala Ile
    450                      455                      460
Lys Asn Lys Ala Gln Ser Val Arg Glu Val Phe Ala Arg Gln Leu Met
    465                      470                      475                      480
Gln Val Arg Gly Val Ser Gly Glu Lys Ala Ala Ala Leu Val Asp Arg
    485                      490                      495
Tyr Ser Thr Pro Ala Ser Leu Leu Ala Ala Tyr Asp Ala Cys Ala Thr
    500                      505                      510
Pro Lys Glu Gln Glu Thr Leu Leu Ser Thr Ile Lys Cys Gly Arg Leu
    515                      520                      525
Gln Arg Asn Leu Gly Pro Ala Leu Ser Arg Thr Leu Ser Gln Leu Tyr
    530                      535                      540
Cys Ser Tyr Gly Pro Leu Thr *
    545                      550 551

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&lt;210&gt; 1327

&lt;211&gt; 328

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<400> 1327

Met	Ala	Trp	Trp	Lys	Ser	Trp	Ile	Glu	Gln	Glu	Gly	Val	Thr	Val	Lys
1				5					10					15	
Ser	Ser	Ser	His	Phe	Asn	Pro	Asp	Pro	Asp	Ala	Glu	Thr	Leu	Tyr	Lys
			20					25					30		
Ala	Met	Lys	Gly	Ile	Gly	Thr	Asn	Glu	Gln	Ala	Ile	Ile	Asp	Val	Leu
		35					40					45			
Thr	Lys	Arg	Ser	Asn	Thr	Gln	Arg	Gln	Gln	Ile	Ala	Lys	Ser	Phe	Lys
	50					55					60				
Ala	Gln	Phe	Gly	Lys	Asp	Leu	Thr	Glu	Thr	Leu	Lys	Ser	Glu	Leu	Ser
65					70					75				80	
Gly	Lys	Phe	Glu	Arg	Leu	Ile	Val	Ala	Leu	Met	Tyr	Pro	Pro	Tyr	Arg
				85					90					95	
Tyr	Glu	Ala	Lys	Glu	Leu	His	Asp	Ala	Met	Lys	Gly	Leu	Gly	Thr	Lys
		100						105					110		
Glu	Gly	Val	Ile	Ile	Glu	Ile	Leu	Ala	Ser	Arg	Thr	Lys	Asn	Gln	Leu
	115						120					125			
Arg	Glu	Ile	Met	Lys	Ala	Tyr	Glu	Glu	Asp	Tyr	Gly	Ser	Ser	Leu	Glu
	130						135				140				
Glu	Asp	Ile	Gln	Ala	Asp	Thr	Ser	Gly	Tyr	Leu	Glu	Arg	Ile	Leu	Val
145					150					155				160	
Cys	Leu	Leu	Gln	Gly	Ser	Arg	Asp	Asp	Val	Ser	Ser	Phe	Val	Asp	Pro
				165					170					175	
Ala	Leu	Ala	Leu	Gln	Asp	Ala	Gln	Asp	Leu	Tyr	Ala	Ala	Gly	Glu	Lys
		180						185					190		
Ile	Arg	Gly	Thr	Asp	Glu	Met	Lys	Phe	Ile	Thr	Ile	Leu	Cys	Thr	Arg
	195						200					205			
Ser	Ala	Thr	His	Leu	Leu	Arg	Val	Phe	Glu	Glu	Tyr	Glu	Lys	Ile	Ala
	210					215					220				
Asn	Lys	Ser	Ile	Glu	Asp	Ser	Ile	Lys	Ser	Glu	Thr	His	Gly	Ser	Leu
225					230					235				240	
Glu	Glu	Ala	Met	Leu	Thr	Val	Val	Lys	Cys	Thr	Gln	Asn	Leu	His	Ser
			245						250					255	
Tyr	Phe	Ala	Glu	Arg	Leu	Tyr	Tyr	Ala	Met	Lys	Gly	Ala	Gly	Thr	Arg
		260						265					270		
Asp	Gly	Thr	Leu	Ile	Arg	Asn	Ile	Val	Ser	Arg	Ser	Glu	Ile	Asp	Leu
	275						280					285			
Asn	Leu	Ile	Lys	Cys	His	Phe	Lys	Lys	Met	Tyr	Gly	Lys	Thr	Leu	Ser
	290					295					300				
Ser	Met	Ile	Met	Glu	Asp	Thr	Ser	Gly	Asp	Tyr	Lys	Asn	Ala	Leu	Leu
305					310					315				320	
Ser	Leu	Val	Gly	Ser	Asp	Pro	*								
				325		327									

&lt;210&gt; 1328

&lt;211&gt; 260

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<400> 1328

Met	Ala	Ala	Ser	Arg	Leu	Glu	Leu	Asn	Leu	Val	Arg	Leu	Leu	Ser	Arg
1				5					10					15	
Cys	Glu	Ala	Met	Ala	Ala	Glu	Lys	Arg	Asp	Pro	Asp	Glu	Trp	Arg	Leu
			20					25					30		
Glu	Lys	Tyr	Val	Gly	Ala	Leu	Glu	Asp	Met	Leu	Gln	Ala	Leu	Lys	Val
		35					40					45			
His	Ala	Ser	Lys	Pro	Ala	Ser	Glu	Val	Ile	Asn	Glu	Tyr	Ser	Trp	Lys
	50					55					60				
Val	Asp	Phe	Leu	Lys	Gly	Met	Leu	Gln	Ala	Glu	Lys	Leu	Thr	Ser	Ser
65					70					75				80	

Ser Glu Lys Ala Leu Ala Asn Gln Phe Leu Ala Pro Gly Arg Val Pro  
                             85                            90                            95  
 Thr Thr Ala Arg Glu Arg Val Pro Ala Thr Lys Thr Val His Leu Gln  
                             100                            105                            110  
 Ser Arg Ala Arg Tyr Thr Ser Glu Met Arg Ser Glu Leu Leu Gly Thr  
                             115                            120                            125  
 Asp Ser Ala Glu Pro Glu Met Asp Val Arg Lys Arg Thr Gly Val Ala  
                             130                            135                            140  
 Gly Ser Gln Pro Val Ser Glu Lys Gln Ser Ala Ala Glu Leu Asp Leu  
                             145                            150                            155                            160  
 Val Leu Gln Arg His Gln Asn Leu Gln Glu Lys Leu Ala Glu Glu Met  
                             165                            170                            175  
 Leu Gly Leu Ala Arg Ser Leu Lys Thr Asn Thr Leu Ala Ala Gln Ser  
                             180                            185                            190  
 Val Ile Lys Lys Asp Asn Gln Thr Leu Ser His Ser Leu Lys Met Ala  
                             195                            200                            205  
 Asp Gln Asn Leu Glu Lys Leu Lys Thr Glu Ser Glu Arg Leu Glu Gln  
                             210                            215                            220  
 His Thr Gln Lys Ser Val Asn Trp Leu Leu Trp Ala Met Leu Ile Ile  
                             225                            230                            235                            240  
 Val Cys Phe Ile Phe Ile Ser Met Ile Leu Phe Ile Arg Ile Met Pro  
                             245                            250                            255  
 Lys Leu Lys \*  
                             259

<210> 1329  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

<400> 1329  
 Met Ala Met Val Ser Ala Met Ser Trp Val Leu Tyr Leu Trp Ile Ser  
                             5                            10                            15  
 Ala Cys Ala Met Leu Leu Cys His Gly Ser Leu Gln His Thr Phe Gln  
                             20                            25                            30  
 Gln His His Leu His Arg Pro Glu Gly Gly Thr Cys Glu Val Ile Ala  
                             35                            40                            45  
 Ala His Arg Cys Cys Asn Lys Asn Arg Ile Glu Glu Arg Ser Gln Thr  
                             50                            55                            60  
 Val Lys Cys Ser Cys Leu Pro Gly Lys Val Ala Gly Thr Thr Arg Asn  
                             65                            70                            75                            80  
 Arg Pro Ser Cys Val Asp Ala Ser Ile Val Ile Gly Lys Trp Trp Cys  
                             85                            90                            95  
 Glu Met Glu Pro Cys Leu Glu Gly Glu Glu Cys Lys Thr Leu Pro Asp  
                             100                            105                            110  
 Asn Ser Gly Trp Met Cys Ala Thr Gly Asn Lys Ile Lys Thr Thr Arg  
                             115                            120                            125  
 Ile His Pro Arg Thr \*  
                             130                            133

<210> 1330  
 <211> 190  
 <212> PRT  
 <213> Homo sapiens

<400> 1330  
 Met Thr Leu Ala Ala Tyr Lys Glu Lys Met Lys Glu Leu Pro Leu Val  
                             1                            5                            10                            15

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Ser Leu Phe Cys Ser Cys Phe Leu Ala Asp Pro Leu Asn Lys Ser Ser
      20      25      30
Tyr Lys Tyr Glu Ala Asp Thr Val Asp Leu Asn Trp Cys Val Ile Ser
      35      40      45
Asp Met Glu Val Ile Glu Leu Asn Lys Cys Thr Ser Gly Gln Ser Phe
      50      55      60
Glu Val Ile Leu Lys Pro Pro Ser Phe Asp Gly Val Pro Glu Phe Asn
      65      70      75      80
Ala Ser Leu Pro Arg Arg Arg Asp Pro Ser Leu Glu Glu Ile Gln Lys
      85      90      95
Lys Leu Glu Ala Ala Glu Glu Arg Arg Lys Tyr Gln Glu Ala Glu Leu
      100      105      110
Leu Lys His Leu Ala Glu Lys Arg Glu His Glu Arg Glu Val Ile Gln
      115      120      125
Lys Ala Ile Glu Glu Asn Asn Asn Phe Ile Lys Met Ala Lys Glu Lys
      130      135      140
Leu Ala Gln Lys Met Glu Ser Asn Lys Glu Asn Arg Glu Ala His Leu
      145      150      155      160
Ala Ala Met Leu Glu Arg Leu Gln Glu Lys Asp Lys His Ala Glu Glu
      165      170      175
Val Arg Lys Asn Lys Glu Leu Lys Glu Glu Ala Ser Arg *
      180      185      189

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<210> 1331
<211> 320
<212> PRT
<213> Homo sapiens

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<400> 1331
Met Met Tyr Ile Thr Ile Tyr Ser Met Met Lys Ile Pro His Gln Thr
  1      5      10      15
Gln Lys Lys Arg Ser Leu Glu Asp Pro Asn Ser Arg Pro Arg Arg Arg
      20      25      30
Gly Val Leu Ser Arg Leu Gln Leu Gly Ser Gly Ala Pro Leu Leu Thr
      35      40      45
Trp Val Gln Glu Thr Ala Gly Val Ala Gly Gly Ala Pro Arg Arg Arg
      50      55      60
Thr Pro Val Thr Met Trp Arg Leu Leu Ala Arg Ala Ser Ala Pro Leu
      65      70      75      80
Leu Arg Val Pro Leu Ser Asp Ser Trp Ala Leu Leu Pro Ala Ser Ala
      85      90      95
Gly Val Lys Thr Leu Leu Pro Val Pro Ser Phe Glu Asp Val Ser Ile
      100      105      110
Pro Glu Lys Pro Lys Leu Arg Phe Ile Glu Arg Ala Pro Leu Val Pro
      115      120      125
Lys Val Arg Arg Glu Pro Lys Asn Leu Ser Asp Ile Arg Gly Pro Ser
      130      135      140
Thr Glu Ala Thr Glu Phe Thr Glu Gly Asn Phe Ala Ile Leu Ala Leu
      145      150      155      160
Gly Gly Gly Tyr Leu His Trp Gly His Phe Glu Met Met Arg Leu Thr
      165      170      175
Ile Asn Arg Ser Met Asp Pro Lys Asn Met Phe Ala Ile Trp Arg Val
      180      185      190
Pro Ala Pro Phe Lys Pro Ile Thr Arg Lys Ser Val Gly His Arg Met
      195      200      205
Gly Gly Lys Lys Gly Ala Ile Asp His Tyr Val Thr Pro Val Lys Ala
      210      215      220
Gly Arg Leu Val Val Glu Met Gly Gly Arg Cys Glu Phe Glu Glu Val
      225      230      235      240
Gln Gly Phe Leu Asp Gln Val Ala His Lys Leu Pro Phe Ala Ala Lys
      245      250      255

```

Ala Val Ser Arg Gly Thr Leu Glu Lys Met Arg Lys Asp Gln Glu Glu  
                   260                  265                  270  
 Arg Glu Arg Asn Asn Gln Asn Pro Trp Thr Phe Glu Arg Ile Ala Thr  
                   275                  280                  285  
 Ala Asn Met Leu Gly Ile Arg Lys Val Leu Ser Pro Tyr Asp Leu Thr  
                   290                  295                  300  
 His Lys Gly Lys Tyr Trp Gly Lys Phe Tyr Met Pro Lys Arg Val \*  
 305                  310                  315                  319

&lt;210&gt; 1332

&lt;211&gt; 622

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1332

Arg Asn Arg Ser Gly Ile Pro Gly Ser Thr His Ala Ser Gly Gly Ser  
   1                  5                  10                  15  
 Gly Ser Ala Ala Glu Thr Met Pro Glu Ile Arg Val Thr Pro Leu Gly  
                   20                  25                  30  
 Ala Gly Gln Asp Val Gly Arg Ser Cys Ile Leu Val Ser Ile Ala Gly  
                   35                  40                  45  
 Lys Asn Val Met Leu Asp Cys Gly Met His Met Gly Phe Asn Asp Asp  
                   50                  55                  60  
 Arg Arg Phe Pro Asp Phe Ser Tyr Ile Thr Gln Asn Gly Arg Leu Thr  
                   65                  70                  75                  80  
 Asp Phe Leu Asp Cys Val Ile Ile Ser His Phe His Leu Asp His Cys  
                   85                  90                  95  
 Gly Ala Leu Pro Tyr Phe Ser Glu Met Val Gly Tyr Asp Gly Pro Ile  
                   100                  105                  110  
 Tyr Met Thr His Pro Thr Gln Ala Ile Cys Pro Ile Leu Leu Glu Asp  
                   115                  120                  125  
 Tyr Arg Lys Ile Ala Val Asp Lys Lys Gly Glu Ala Asn Phe Phe Thr  
                   130                  135                  140  
 Ser Gln Met Ile Lys Asp Cys Met Lys Lys Val Val Ala Val His Leu  
                   145                  150                  155                  160  
 His Gln Thr Val Gln Val Asp Asp Glu Leu Glu Ile Lys Ala Tyr Tyr  
                   165                  170                  175  
 Ala Gly His Val Leu Gly Ala Ala Met Phe Gln Ile Lys Val Gly Ser  
                   180                  185                  190  
 Glu Ser Val Val Tyr Thr Gly Asp Tyr Asn Met Thr Pro Asp Arg His  
                   195                  200                  205  
 Leu Gly Ala Ala Trp Ile Asp Lys Cys Arg Pro Asn Leu Leu Ile Thr  
                   210                  215                  220  
 Glu Ser Thr Tyr Ala Thr Thr Ile Arg Asp Ser Lys Arg Cys Arg Glu  
                   225                  230                  235                  240  
 Arg Asp Phe Leu Lys Lys Val His Glu Thr Val Glu Arg Gly Gly Lys  
                   245                  250                  255  
 Val Leu Ile Pro Val Phe Ala Leu Gly Arg Ala Gln Glu Leu Cys Ile  
                   260                  265                  270  
 Leu Leu Glu Thr Phe Trp Glu Arg Met Asn Leu Lys Val Pro Ile Tyr  
                   275                  280                  285  
 Phe Ser Thr Gly Leu Thr Glu Lys Ala Asn His Tyr Tyr Lys Leu Phe  
                   290                  295                  300  
 Ile Pro Trp Thr Asn Gln Lys Ile Arg Lys Thr Phe Val Gln Arg Asn  
                   305                  310                  315                  320  
 Met Phe Glu Phe Lys His Ile Lys Ala Phe Asp Arg Ala Phe Ala Asp  
                   325                  330                  335  
 Asn Pro Gly Pro Met Val Val Phe Ala Thr Pro Gly Met Leu His Ala  
                   340                  345                  350  
 Gly Gln Ser Leu Gln Ile Phe Arg Lys Trp Ala Gly Asn Glu Lys Asn  
                   355                  360                  365

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Met Val Ile Met Pro Gly Tyr Cys Val Gln Gly Thr Val Gly His Lys
  370          375          380
Ile Leu Ser Gly Gln Arg Lys Leu Glu Met Glu Gly Arg Gln Val Leu
385          390          395          400
Glu Val Lys Met Gln Val Glu Tyr Met Ser Phe Ser Ala His Ala Asp
          405          410          415
Ala Lys Gly Ile Met Gln Leu Val Gly Gln Ala Glu Pro Glu Ser Val
          420          425          430
Leu Leu Val His Gly Glu Ala Lys Lys Met Glu Phe Leu Lys Gln Lys
          435          440          445
Ile Glu Gln Glu Leu Arg Val Asn Cys Tyr Met Pro Ala Asn Gly Glu
          450          455          460
Thr Val Thr Leu Pro Thr Ser Pro Ser Ile Pro Val Gly Ile Ser Leu
465          470          475          480
Gly Leu Leu Lys Arg Glu Met Ala Gln Gly Leu Leu Pro Glu Ala Lys
          485          490          495
Lys Pro Arg Leu Leu His Gly Thr Leu Ile Met Lys Asp Ser Asn Phe
          500          505          510
Arg Leu Val Ser Ser Glu Gln Ala Leu Lys Glu Leu Gly Leu Ala Glu
          515          520          525
His Gln Leu Arg Phe Thr Cys Arg Val His Leu His Asp Thr Arg Lys
          530          535          540
Glu Gln Glu Thr Ala Leu Arg Val Tyr Ser His Leu Lys Ser Val Leu
545          550          555          560
Lys Asp His Cys Val Gln His Leu Pro Asp Gly Ser Val Thr Val Glu
          565          570          575
Ser Val Leu Leu Gln Ala Ala Ala Pro Ser Glu Asp Pro Gly Thr Lys
          580          585          590
Val Leu Leu Val Ser Trp Thr Tyr Gln Asp Glu Glu Leu Gly Ser Phe
          595          600          605
Leu Thr Ser Leu Leu Lys Lys Gly Leu Pro Gln Ala Pro Ser
          610          615          620          622

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<210> 1333  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

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<400> 1333
Ala Arg Ala Ala Phe Arg Arg Leu Gly Ala Leu Ser Gly Ala Ala Ala
  1          5          10          15
Leu Gly Phe Ala Ser Tyr Gly Ala His Gly Ala Gln Phe Pro Asp Ala
          20          25          30
Tyr Gly Lys Glu Leu Phe Asp Lys Ala Asn Lys His His Phe Leu His
          35          40          45
Ser Leu Ala Leu Leu Gly Val Pro His Cys Arg Lys Pro Leu Trp Ala
          50          55          60
Gly Leu Leu Leu Ala Ser Gly Thr Thr Leu Phe Cys Thr Ser Phe Tyr
          65          70          75          80
Tyr Gln Ala Leu Ser Gly Asp Pro Ser Ile Gln Thr Leu Ala Pro Ala
          85          90          95
Gly Gly Thr Leu Leu Leu Leu Gly Trp Leu Ala Leu Ala Leu *
          100          105          110

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<210> 1334  
 <211> 397  
 <212> PRT  
 <213> Homo sapiens



&lt;400&gt; 1334

Ala Arg Ser Pro Ala Ala Pro Arg Val Cys Pro Arg Pro Ala Gly Ala  
 1 5 10 15  
 Gly Lys Met Glu Ala Val Ile Glu Lys Glu Cys Ser Ala Leu Gly Gly  
 20 25 30  
 Leu Phe Gln Thr Ile Ile Ser Asp Met Lys Gly Ser Tyr Pro Val Trp  
 35 40 45  
 Glu Asp Phe Ile Asn Lys Ala Gly Lys Leu Gln Ser Gln Leu Arg Thr  
 50 55 60  
 Thr Val Val Ala Ala Ala Phe Leu Asp Ala Phe Gln Lys Val Ala  
 65 70 75 80  
 Asp Met Ala Thr Asn Thr Arg Gly Gly Thr Arg Glu Ile Gly Ser Ala  
 85 90 95  
 Leu Thr Arg Met Cys Met Arg His Arg Ser Ile Glu Ala Lys Leu Arg  
 100 105 110  
 Gln Phe Ser Ser Ala Leu Ile Asp Cys Leu Ile Asn Pro Leu Gln Glu  
 115 120 125  
 Gln Met Glu Glu Trp Lys Lys Val Ala Asn Gln Leu Asp Lys Asp His  
 130 135 140  
 Ala Lys Glu Tyr Lys Lys Ala Arg Gln Glu Ile Lys Lys Lys Ser Ser  
 145 150 155 160  
 Asp Thr Leu Lys Leu Gln Lys Lys Ala Lys Lys Gly Arg Gly Asp Ile  
 165 170 175  
 Gln Pro Gln Leu Asp Ser Ala Leu Gln Asp Val Asn Asp Lys Tyr Leu  
 180 185 190  
 Leu Leu Glu Glu Thr Glu Lys Gln Ala Val Arg Lys Ala Leu Ile Glu  
 195 200 205  
 Glu Arg Gly Arg Phe Cys Thr Phe Ile Ser Met Leu Arg Pro Val Ile  
 210 215 220  
 Glu Glu Glu Ile Ser Met Leu Gly Glu Ile Thr His Leu Gln Thr Ile  
 225 230 235 240  
 Ser Glu Asp Leu Lys Ser Leu Thr Met Asp Pro His Lys Leu Pro Ser  
 245 250 255  
 Ser Ser Glu Gln Val Ile Leu Asp Leu Lys Gly Ser Asp Tyr Ser Trp  
 260 265 270  
 Ser Tyr Gln Thr Pro Pro Ser Ser Pro Ser Thr Thr Met Ser Arg Lys  
 275 280 285  
 Ser Ser Val Cys Ser Ser Leu Asn Ser Val Asn Ser Ser Asp Ser Arg  
 290 295 300  
 Ser Ser Gly Ser His Ser His Ser Pro Ser Ser His Tyr Arg Tyr Arg  
 305 310 315 320  
 Ser Ser Asn Leu Ala Gln Gln Ala Pro Val Arg Leu Ser Ser Val Ser  
 325 330 335  
 Ser His Asp Ser Gly Phe Ile Ser Gln Asp Ala Phe Gln Ser Lys Ser  
 340 345 350  
 Pro Ser Pro Met Pro Pro Glu Ala Pro Asn Gln Arg Arg Lys Glu Lys  
 355 360 365  
 Arg Glu Pro Asp Pro Asn Gly Gly Gly Pro Thr Thr Ala Ser Gly Pro  
 370 375 380  
 Pro Ala Ala Ala Glu Glu Ala Gln Arg Pro Arg Ser Met  
 385 390 395 397

&lt;210&gt; 1335

&lt;211&gt; 278

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1335

Met Asn Leu Glu Gly Leu Glu Met Val Ala Val Leu Val Val Leu Ala  
 1 5 10 15

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Leu Phe Val Lys Val Leu Glu Gln Phe Gly Leu Phe Glu Pro Val Ser
      20      25      30
Leu Glu Gly His Pro Pro Gly Pro Thr Lys Lys Ala Leu Lys Gln Arg
      35      40      45
Phe Leu Lys Leu Leu Pro Cys Cys Gly Pro Gln Ala Leu Pro Ser Val
      50      55      60
Ser Glu Ser Lys Cys Leu Ser Cys Ala Ser Gly Gly Gly Ala Arg Cys
      65      70      75      80
Val His Ser Val Asp Asp Glu Phe Glu Leu Ser Thr Val Cys His Arg
      85      90      95
Pro Glu Gly Leu Glu Gln Leu Gln Glu Gln Thr Lys Phe Thr Arg Lys
      100      105      110
Glu Leu Gln Val Leu Tyr Arg Gly Phe Lys Asn Glu Cys Pro Ser Gly
      115      120      125
Ile Val Asn Glu Glu Asn Phe Lys Gln Ile Tyr Ser Gln Phe Phe Pro
      130      135      140
Gln Gly Asp Ser Ser Thr Tyr Ala Thr Phe Leu Phe Asn Ala Phe Asp
      145      150      155      160
Thr Asn His Asp Gly Ser Val Ser Phe Glu Asp Phe Val Ala Gly Leu
      165      170      175
Ser Val Ile Leu Arg Gly Thr Val Asp Asp Arg Leu Asn Trp Ala Phe
      180      185      190
Asn Leu Tyr Asp Leu Asn Lys Asp Gly Cys Ile Thr Lys Glu Glu Met
      195      200      205
Leu Asp Ile Met Lys Ser Ile Tyr Asp Met Met Gly Lys Tyr Thr Tyr
      210      215      220
Pro Ala Leu Arg Glu Glu Ala Pro Arg Glu His Val Glu Ser Phe Phe
      225      230      235      240
Gln Lys Met Asp Arg Asn Lys Asp Gly Val Val Thr Ile Glu Glu Phe
      245      250      255
Ile Glu Ser Cys Gln Lys Asp Glu Asn Ile Met Arg Ser Met Gln Leu
      260      265      270
Phe Asp Asn Val Ile *
      275      277

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<210> 1336
<211> 123
<212> PRT
<213> Homo sapiens

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<400> 1336
Met Ile Trp Tyr Thr Glu Lys Gly His Leu Thr Lys Thr Arg Asp Phe
  1      5      10      15
Lys Lys Leu Arg Lys Leu Ser Gly Ser Gly Asp Ser Trp Ala Arg Ala
      20      25      30
Pro Thr His His Thr Ile Gln Thr Arg Ala Leu Trp Pro Cys Ala Arg
      35      40      45
Lys Asp Leu Ile Ile Leu Phe Thr Leu Gln Asn Val Ala Glu Ala Gln
      50      55      60
Cys Ile Ala Asn Gln Val Gln Leu Phe Tyr Ala Thr Asp Arg Lys Glu
      65      70      75      80
Thr Tyr Gly Leu Val Glu Thr Phe Asn Leu Arg Pro Asn Glu Phe Lys
      85      90      95
Tyr Met Ser Val Ile Ala Glu Leu Glu Gln Ser Gly Leu Gly Ala Glu
      100      105      110
Leu Lys Cys Ala Gln Asn Gln Asn Lys Thr *
      115      120      122

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<210> 1337

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<211> 189  
 <212> PRT  
 <213> Homo sapiens

<400> 1337  
 Met Asn Trp His Met Ile Ile Ser Gly Leu Ile Val Val Val Leu Lys  
 1 5 10 15  
 Val Val Gly Met Thr Leu Phe Leu Leu Tyr Phe Pro Gln Ile Phe Asn  
 20 25 30  
 Lys Ser Asn Asp Gly Phe Thr Thr Arg Ser Tyr Gly Thr Val Ser  
 35 40 45  
 Gln Ile Phe Gly Ser Ser Ser Pro Ser Pro Asn Gly Phe Ile Thr Thr  
 50 55 60  
 Arg Ser Tyr Gly Thr Val Cys Pro Lys Asp Trp Glu Phe Tyr Gln Ala  
 65 70 75 80  
 Arg Cys Phe Phe Leu Ser Thr Ser Glu Ser Ser Trp Asn Glu Ser Arg  
 85 90 95  
 Asp Phe Cys Lys Gly Lys Gly Ser Thr Leu Ala Ile Val Asn Thr Pro  
 100 105 110  
 Glu Lys Leu Lys Phe Leu Gln Asp Ile Thr Asp Ala Glu Lys Tyr Phe  
 115 120 125  
 Ile Gly Leu Ile Tyr His Arg Glu Glu Lys Arg Trp Arg Trp Ile Asn  
 130 135 140  
 Asn Ser Val Phe Asn Gly Asn Val Thr Asn Gln Asn Gln Asn Phe Asn  
 145 150 155 160  
 Cys Ala Thr Ile Gly Leu Thr Lys Thr Phe Asp Ala Ala Ser Cys Asp  
 165 170 175  
 Ile Ser Tyr Arg Arg Ile Cys Glu Lys Asn Ala Lys \*  
 180 185 188

<210> 1338  
 <211> 1089  
 <212> PRT  
 <213> Homo sapiens

<400> 1338  
 Met Gly Ser Ala Ala Arg Trp Glu Gly Ser Phe Ser Arg Glu Phe Ser  
 1 5 10 15  
 Ser Leu Leu Ser Arg Gly Cys Leu Ser Thr Ser Arg Ile Asp Met Asp  
 20 25 30  
 Ala Leu Glu Asp Tyr Val Trp Pro Arg Ala Thr Ser Glu Leu Ile Leu  
 35 40 45  
 Leu Pro Val Thr Gly Leu Glu Cys Val Gly Asp Arg Leu Leu Ala Gly  
 50 55 60  
 Glu Gly Pro Asp Val Leu Val Tyr Ser Leu Asp Phe Gly Gly His Leu  
 65 70 75 80  
 Arg Met Ile Lys Arg Val Gln Asn Leu Leu Gly His Tyr Leu Ile His  
 85 90 95  
 Gly Phe Arg Val Arg Pro Glu Pro Asn Gly Asp Leu Asp Leu Glu Ala  
 100 105 110  
 Met Val Ala Val Phe Gly Ser Lys Gly Leu Arg Val Val Lys Ile Ser  
 115 120 125  
 Trp Gly Gln Gly His Phe Trp Glu Leu Trp Arg Ser Gly Leu Trp Asn  
 130 135 140  
 Met Ser Asp Trp Ile Trp Asp Ala Arg Trp Leu Glu Gly Asn Ile Ala  
 145 150 155 160  
 Leu Ala Leu Gly His Asn Ser Val Val Leu Tyr Asp Pro Val Val Gly  
 165 170 175  
 Cys Ile Leu Gln Glu Val Pro Cys Thr Asp Arg Cys Thr Leu Ser Ser  
 180 185 190

Ala Cys Leu Ile Gly Asp Ala Trp Lys Glu Leu Thr Ile Val Ala Gly  
 195 200 205  
 Ala Val Ser Asn Gln Leu Leu Val Trp Tyr Pro Ala Thr Ala Leu Ala  
 210 215 220  
 Asp Asn Lys Pro Val Ala Pro Asp Arg Arg Ile Ser Gly His Val Gly  
 225 230 235 240  
 Ile Ile Phe Ser Met Ser Tyr Leu Glu Ser Lys Gly Leu Leu Ala Thr  
 245 250 255  
 Ala Ser Glu Asp Arg Ser Val Arg Ile Trp Lys Val Gly Asp Leu Arg  
 260 265 270  
 Val Pro Gly Gly Arg Val Gln Asn Ile Gly His Cys Phe Gly His Ser  
 275 280 285  
 Ala Arg Val Trp Gln Val Lys Leu Leu Glu Asn Tyr Leu Ile Ser Ala  
 290 295 300  
 Gly Glu Asp Cys Val Cys Leu Val Trp Ser His Glu Gly Glu Ile Leu  
 305 310 315 320  
 Gln Ala Phe Arg Gly His Gln Gly Arg Gly Ile Arg Ala Ile Ala Ala  
 325 330 335  
 His Glu Arg Gln Ala Trp Val Ile Thr Gly Gly Asp Asp Ser Gly Ile  
 340 345 350  
 Arg Leu Trp His Leu Val Gly Arg Gly Tyr Arg Gly Leu Gly Val Ser  
 355 360 365  
 Ala Leu Cys Phe Lys Ser Arg Ser Arg Pro Gly Thr Leu Lys Ala Val  
 370 375 380  
 Thr Leu Ala Gly Ser Trp Arg Leu Leu Ala Val Thr Asp Thr Gly Ala  
 385 390 395 400  
 Leu Tyr Leu Tyr Asp Val Glu Val Lys Cys Trp Glu Gln Leu Leu Glu  
 405 410 415  
 Asp Lys His Phe Gln Ser Tyr Cys Leu Leu Glu Ala Ala Pro Gly Pro  
 420 425 430  
 Glu Gly Phe Gly Leu Cys Ala Met Ala Asn Gly Glu Gly Arg Val Lys  
 435 440 445  
 Val Val Pro Ile Asn Thr Pro Thr Ala Ala Val Asp Gln Thr Leu Phe  
 450 455 460  
 Pro Gly Lys Val His Ser Leu Ser Trp Ala Leu Arg Gly Tyr Glu Glu  
 465 470 475 480  
 Leu Leu Leu Leu Ala Ser Gly Pro Gly Gly Val Val Ala Cys Leu Glu  
 485 490 495  
 Ile Ser Ala Ala Pro Ser Gly Lys Ala Ile Phe Val Lys Glu Arg Cys  
 500 505 510  
 Arg Tyr Leu Leu Pro Pro Ser Lys Gln Arg Trp His Thr Cys Ser Ala  
 515 520 525  
 Phe Leu Pro Pro Gly Asp Phe Leu Val Cys Gly Asp Arg Arg Gly Ser  
 530 535 540  
 Val Leu Leu Phe Pro Ser Gly Pro Gly Arg Asp Gly Ala Tyr Tyr Gln  
 545 550 555 560  
 Leu Phe Val Arg Asp Gly Gln Leu Gln Pro Val Leu Arg Gln Lys Ser  
 565 570 575  
 Cys Arg Gly Met Asn Trp Leu Ala Gly Leu Arg Ile Val Pro Asp Gly  
 580 585 590  
 Ser Met Val Ile Leu Gly Phe His Ala Asn Glu Phe Val Val Trp Asn  
 595 600 605  
 Pro Arg Ser His Glu Lys Leu His Ile Ile Asn Cys Gly Gly Gly His  
 610 615 620  
 Arg Ser Trp Ala Phe Ser Asp Thr Glu Ala Ala Met Ala Phe Ala Tyr  
 625 630 635 640  
 Leu Lys Asp Gly Asp Val Met Leu Tyr Arg Ala Leu Gly Gly Cys Thr  
 645 650 655  
 Arg Pro His Val Ile Leu Arg Glu Gly Leu His Gly Arg Glu Ile Thr  
 660 665 670  
 Cys Val Lys Arg Val Gly Thr Ile Thr Leu Gly Pro Glu Tyr Gly Val  
 675 680 685  
 Pro Ser Phe Met Gln Pro Asp Asp Leu Glu Pro Gly Ser Glu Gly Pro  
 690 695 700

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Asp Leu Thr Asp Ile Val Ile Thr Cys Ser Glu Asp Thr Thr Val Cys
705              710              715              720
Val Leu Ala Leu Pro Thr Thr Thr Gly Ser Ala His Ala Leu Thr Ala
              725              730              735
Val Cys Asn His Ile Ser Ser Val Arg Ala Val Ala Val Trp Gly Ile
              740              745              750
Gly Thr Pro Gly Gly Pro Gln Asp Pro Gln Pro Gly Leu Thr Ala His
              755              760              765
Val Val Ser Ala Gly Gly Arg Ala Glu Met His Cys Phe Ser Ile Met
              770              775              780
Val Thr Pro Asp Pro Ser Thr Pro Ser Arg Leu Ala Cys His Val Met
785              790              795              800
His Leu Ser Ser His Arg Leu Asp Glu Tyr Trp Asp Arg Gln Arg Asn
              805              810              815
Arg His Arg Met Val Lys Val Asp Pro Glu Thr Arg Tyr Met Ser Leu
              820              825              830
Ala Val Cys Glu Leu Asp Gln Pro Gly Leu Gly Pro Leu Val Ala Ala
              835              840              845
Ala Cys Ser Asp Gly Ala Val Arg Leu Phe Leu Leu Gln Asp Ser Gly
              850              855              860
Arg Ile Leu Gln Leu Leu Ala Glu Thr Phe His His Lys Arg Cys Val
865              870              875              880
Leu Lys Val His Ser Phe Thr His Glu Ala Pro Asn Gln Arg Arg Arg
              885              890              895
Leu Leu Leu Cys Ser Ala Ala Thr Asp Gly Ser Leu Ala Phe Trp Asp
              900              905              910
Leu Thr Thr Met Leu Asp His Asp Ser Thr Val Leu Glu Pro Pro Val
              915              920              925
Asp Pro Gly Leu Pro Tyr Arg Leu Gly Thr Pro Ser Leu Thr Leu Gln
              930              935              940
Ala His Ser Cys Gly Ile Asn Ser Leu His Thr Leu Pro Thr Arg Glu
945              950              955              960
Gly His His Leu Val Ala Ser Gly Ser Glu Asp Gly Ser Leu His Val
              965              970              975
Phe Val Leu Ala Val Glu Met Leu Gln Leu Glu Glu Ala Val Gly Glu
              980              985              990
Ala Gly Leu Val Pro Gln Leu Arg Val Leu Glu Glu Tyr Ser Val Pro
              995              1000              1005
Cys Ala His Ala Ala His Val Thr Gly Leu Lys Ile Leu Ser Pro Ser
1010              1015              1020
Ile Met Val Ser Ala Ser Ile Asp Gln Arg Leu Thr Phe Trp Arg Leu
1025              1030              1035              1040
Gly His Gly Glu Pro Thr Phe Met Asn Ser Thr Val Phe His Val Pro
              1045              1050              1055
Asp Val Ala Asp Met Asp Cys Trp Pro Val Ser Pro Glu Phe Gly His
              1060              1065              1070
Arg Cys Ala Leu Gly Gly Gln Gly Leu Glu Val Tyr Asn Trp Tyr Asp
              1075              1080              1085              1088

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<210> 1339
<211> 185
<212> PRT
<213> Homo sapiens

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<400> 1339
Met Asn Cys Thr Leu Lys Asn Thr Leu Thr Lys Leu Ile Leu Glu Thr
1          5          10          15
Gly Val Asn Cys Val Ser Leu Leu Pro Leu Ala Leu Leu Arg Val Arg
          20          25          30

```

Cys Thr Pro Tyr Trp Ala Gly Phe Leu Pro Phe Glu Ile Met Tyr Gly  
 35 40 45  
 Arg Ala Leu Pro Ile Leu Pro Lys Leu Arg Asp Ala Gln Leu Ala Lys  
 50 55 60  
 Ile Ser Gln Thr Asn Leu Leu Gln Tyr Leu Gln Ser Pro Gln Gln Val  
 65 70 75 80  
 Gln Asp Ile Ile Leu Pro Leu Val Arg Gly Thr His Pro Asn Pro Ile  
 85 90 95  
 Pro Glu Gln Thr Gly Pro Cys His Ser Phe Pro Pro Gly Asp Leu Leu  
 100 105 110  
 Phe Val Lys Lys Phe Gln Arg Glu Gly Leu Pro Pro Ala Trp Lys Arg  
 115 120 125  
 Pro His Thr Val Ile Thr Met Pro Thr Ala Leu Lys Val Asp Gly Ile  
 130 135 140  
 Pro Ala Trp Ile His His Ser Arg Ile Lys Lys Ala Asn Arg Ala Gln  
 145 150 155 160  
 Leu Glu Thr Trp Val Pro Arg Ala Gly Ser Gly Pro Leu Lys Leu His  
 165 170 175  
 Leu Ser Trp Val Lys Pro Leu Asp \*  
 180 184

&lt;210&gt; 1340

&lt;211&gt; 739

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1340

Met Lys Gly Phe Lys Leu Ser Cys Thr Ala Ser Asn Ser Asn Arg Ser  
 1 5 10 15  
 Thr Pro Ala Cys Ser Pro Ile Leu Arg Lys Arg Ser Arg Ser Pro Thr  
 20 25 30  
 Pro Gln Asn Gln Asp Gly Asp Thr Met Val Glu Lys Gly Ser Asp His  
 35 40 45  
 Ser Ser Asp Lys Ser Pro Ser Thr Pro Glu Gln Gly Val Gln Arg Ser  
 50 55 60  
 Cys Ser Ser Gln Ser Gly Arg Ser Gly Gly Lys Asn Ser Lys Lys Ser  
 65 70 75 80  
 Gln Ser Trp Tyr Asn Val Leu Ser Pro Thr Tyr Lys Gln Arg Asn Glu  
 85 90 95  
 Asp Phe Arg Lys Leu Phe Lys Gln Leu Pro Asp Thr Glu Arg Leu Ile  
 100 105 110  
 Val Asp Tyr Ser Cys Ala Leu Gln Arg Asp Ile Leu Leu Gln Gly Arg  
 115 120 125  
 Leu Tyr Leu Ser Glu Asn Trp Ile Cys Phe Tyr Ser Asn Ile Phe Arg  
 130 135 140  
 Trp Glu Thr Leu Leu Thr Val Arg Leu Lys Asp Ile Cys Ser Met Thr  
 145 150 155 160  
 Lys Glu Lys Thr Ala Arg Leu Ile Pro Asn Ala Ile Gln Val Cys Thr  
 165 170 175  
 Asp Ser Glu Lys His Phe Phe Thr Ser Phe Gly Ala Arg Asp Arg Thr  
 180 185 190  
 Tyr Met Met Met Phe Arg Leu Trp Gln Asn Ala Leu Leu Glu Lys Pro  
 195 200 205  
 Leu Cys Pro Lys Glu Leu Trp His Phe Val His Gln Cys Tyr Gly Asn  
 210 215 220  
 Glu Leu Gly Leu Thr Ser Asp Asp Glu Asp Tyr Val Pro Pro Asp Asp  
 225 230 235 240  
 Asp Phe Asn Thr Met Gly Tyr Cys Glu Glu Ile Pro Val Glu Glu Asn  
 245 250 255  
 Glu Val Asn Asp Ser Ser Ser Lys Ser Ser Ile Glu Thr Lys Pro Asp  
 260 265 270

MISSING AT THE TIME OF PUBLICATION

<211> 735  
 <212> PRT  
 <213> Homo sapiens

<400> 1341

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Met Lys Gly Phe Lys Leu Ser Cys Thr Ala Ser Asn Ser Asn Arg Ser
 1          5          10          15
Thr Pro Ala Cys Ser Pro Ile Leu Arg Lys Arg Ser Arg Ser Pro Thr
          20          25          30
Pro Gln Asn Gln Asp Gly Asp Thr Met Val Glu Lys Gly Ser Asp His
          35          40          45
Ser Ser Asp Lys Ser Pro Ser Thr Pro Glu Gln Gly Val Gln Arg Ser
          50          55          60
Cys Ser Ser Gln Ser Gly Arg Ser Gly Gly Lys Asn Ser Lys Lys Ser
          65          70          75          80
Gln Ser Trp Tyr Asn Val Leu Ser Pro Thr Tyr Lys Gln Arg Asn Glu
          85          90          95
Asp Phe Arg Lys Leu Phe Lys Gln Leu Pro Asp Thr Glu Arg Leu Ile
          100          105          110
Val Asp Tyr Ser Cys Ala Leu Gln Arg Asp Ile Leu Leu Gln Gly Arg
          115          120          125
Leu Tyr Leu Ser Glu Asn Trp Ile Cys Phe Tyr Ser Asn Ile Phe Arg
          130          135          140
Trp Glu Thr Leu Leu Thr Val Arg Leu Lys Asp Ile Cys Ser Met Thr
          145          150          155          160
Lys Glu Lys Thr Ala Arg Leu Ile Pro Asn Ala Ile Gln Val Cys Thr
          165          170          175
Asp Ser Glu Lys His Phe Phe Thr Ser Phe Gly Ala Arg Asp Arg Thr
          180          185          190
Tyr Met Met Met Phe Arg Leu Trp Gln Asn Ala Leu Leu Glu Lys Pro
          195          200          205
Leu Cys Pro Lys Glu Leu Trp His Phe Val His Gln Cys Tyr Gly Asn
          210          215          220
Glu Leu Gly Leu Thr Ser Asp Asp Glu Asp Tyr Val Pro Pro Asp Asp
          225          230          235          240
Asp Phe Asn Thr Met Gly Tyr Cys Glu Glu Ile Pro Val Glu Glu Asn
          245          250          255
Glu Val Asn Asp Ser Ser Ser Lys Ser Ser Ile Glu Thr Lys Pro Asp
          260          265          270
Ala Ser Pro Gln Leu Pro Lys Lys Ser Ile Thr Asn Ser Thr Leu Thr
          275          280          285
Ser Thr Gly Ser Ser Glu Ala Pro Val Ser Phe Asp Gly Leu Pro Leu
          290          295          300
Glu Glu Glu Ala Leu Glu Gly Asp Gly Ser Leu Glu Lys Glu Leu Ala
          305          310          315          320
Ile Asp Asn Ile Met Gly Glu Lys Ile Glu Met Ile Ala Pro Val Asn
          325          330          335
Ser Pro Ser Leu Asp Phe Asn Asp Asn Glu Asp Ile Pro Thr Glu Leu
          340          345          350
Ser Asp Ser Ser Asp Thr His Asp Glu Gly Glu Val Gln Ala Phe Tyr
          355          360          365
Glu Asp Leu Ser Gly Arg Gln Tyr Val Asn Glu Val Phe Asn Phe Ser
          370          375          380
Val Asp Lys Leu Tyr Asp Leu Leu Phe Thr Asn Ser Pro Phe Gln Arg
          385          390          395          400
Asp Phe Met Glu Gln Arg Arg Phe Ser Asp Ile Ile Phe His Pro Trp
          405          410          415
Lys Lys Glu Glu Asn Gly Asn Gln Ser Arg Val Ile Leu Tyr Thr Ile
          420          425          430
Thr Leu Thr Asn Pro Leu Ala Pro Lys Thr Ala Thr Val Arg Glu Thr
          435          440          445
Gln Thr Met Tyr Lys Ala Ser Gln Glu Ser Glu Cys Tyr Val Ile Asp
          450          455          460

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Ala Glu Val Leu Thr His Asp Val Pro Tyr His Asp Tyr Phe Tyr Thr  
 465 470 475 480  
 Ile Asn Arg Tyr Thr Leu Thr Arg Val Ala Arg Asn Lys Ser Arg Leu  
 485 490 495  
 Arg Val Ser Thr Glu Leu Arg Tyr Arg Lys Gln Pro Trp Gly Leu Val  
 500 505 510  
 Lys Thr Phe Ile Glu Lys Asn Phe Trp Ser Gly Leu Glu Asp Tyr Phe  
 515 520 525  
 Arg His Leu Glu Ser Glu Leu Ala Lys Thr Glu Ser Thr Tyr Leu Ala  
 530 535 540  
 Glu Met His Arg Gln Ser Pro Lys Glu Lys Ala Ser Lys Thr Thr Thr  
 545 550 555 560  
 Val Arg Arg Arg Lys Arg Pro His Ala His Leu Arg Val Pro His Leu  
 565 570 575  
 Glu Glu Val Met Ser Pro Val Thr Thr Pro Thr Asp Glu Asp Val Gly  
 580 585 590  
 His Arg Ile Lys His Val Ala Gly Ser Thr Gln Thr Arg His Ile Pro  
 595 600 605  
 Glu Asp Thr Pro Asn Gly Phe His Leu Gln Ser Val Ser Lys Leu Leu  
 610 615 620  
 Leu Val Ile Ser Cys Val Leu Val Leu Leu Val Ile Leu Asn Met Met  
 625 630 635 640  
 Leu Phe Tyr Lys Leu Trp Met Leu Glu Tyr Thr Thr Gln Thr Leu Thr  
 645 650 655  
 Ala Trp Gln Gly Leu Arg Leu Gln Glu Arg Leu Pro Gln Ser Gln Thr  
 660 665 670  
 Glu Trp Ala Gln Leu Leu Glu Ser Gln Gln Lys Tyr His Asp Thr Glu  
 675 680 685  
 Leu Gln Lys Trp Arg Glu Ile Ile Lys Ser Ser Val Met Leu Leu Asp  
 690 695 700  
 Gln Met Lys Asp Ser Leu Ile Asn Leu Gln Asn Gly Ile Arg Ser Arg  
 705 710 715 720  
 Asp Tyr Thr Ser Glu Ser Glu Glu Lys Arg Asn Arg Tyr His \*  
 725 730 734

<210> 1342  
 <211> 436  
 <212> PRT  
 <213> Homo sapiens

<400> 1342  
 Met Ala Ala Ser Asp Thr Glu Arg Asp Gly Leu Ala Pro Glu Lys Thr  
 1 5 10 15  
 Ser Pro Asp Arg Asp Lys Lys Lys Glu Gln Ser Glu Val Ser Val Ser  
 20 25 30  
 Pro Arg Ala Ser Lys His His Tyr Ser Arg Ser Arg Ser Arg  
 35 40 45  
 Glu Arg Lys Arg Lys Ser Asp Asn Glu Gly Arg Lys His Arg Ser Arg  
 50 55 60  
 Ser Arg Ser Lys Glu Gly Arg Arg His Glu Ser Lys Asp Lys Ser Ser  
 65 70 75 80  
 Lys Lys His Lys Ser Glu Glu His Asn Asp Lys Glu His Ser Ser Asp  
 85 90 95  
 Lys Gly Arg Glu Arg Leu Asn Ser Ser Glu Asn Gly Glu Asp Arg His  
 100 105 110  
 Lys Arg Lys Glu Arg Lys Ser Ser Arg Gly Arg Ser His Ser Arg Ser  
 115 120 125  
 Arg Ser Arg Glu Arg Arg His Arg Ser Arg Ser Arg Glu Arg Lys Lys  
 130 135 140  
 Ser Arg Ser Arg Ser Arg Glu Arg Lys Lys Ser Arg Ser Arg Ser Arg  
 145 150 155 160

Glu Arg Lys Lys Ser Arg Ser Arg Ser Arg Glu Arg Lys Arg Arg Ile  
                                   165                                  170                                  175  
 Arg Ser Arg Ser Arg Ser Arg Ser Arg His Arg His Arg Thr Arg Ser  
                                   180                                  185                                  190  
 Arg Ser Arg Thr Arg Ser Arg Ser Arg Asp Arg Lys Lys Arg Ile Glu  
                                   195                                  200                                  205  
 Lys Pro Arg Arg Phe Ser Arg Ser Leu Ser Arg Thr Pro Ser Pro Pro  
                                   210                                  215                                  220  
 Pro Phe Arg Gly Arg Asn Thr Ala Met Asp Ala Gln Glu Ala Leu Ala  
                                   225                                  230                                  235                                  240  
 Arg Arg Leu Glu Arg Ala Lys Lys Leu Gln Glu Arg Glu Lys Glu  
                                   245                                  250                                  255  
 Met Val Glu Lys Gln Lys Gln Gln Glu Ile Ala Ala Ala Ala Ala Ala  
                                   260                                  265                                  270  
 Thr Gly Gly Ser Val Leu Asn Val Ala Ala Leu Leu Ala Ser Gly Thr  
                                   275                                  280                                  285  
 Gln Val Thr Pro Gln Ile Ala Met Ala Ala Gln Met Ala Ala Leu Gln  
                                   290                                  295                                  300  
 Ala Lys Ala Leu Ala Glu Thr Gly Ile Ala Val Pro Ser Tyr Tyr Asn  
                                   305                                  310                                  315                                  320  
 Pro Ala Ala Val Asn Pro Met Lys Phe Ala Glu Gln Glu Lys Lys Arg  
                                   325                                  330                                  335  
 Lys Met Leu Trp Gln Gly Lys Lys Glu Gly Asp Lys Ser Gln Ser Ala  
                                   340                                  345                                  350  
 Glu Ile Trp Glu Lys Leu Asn Phe Gly Asn Lys Asp Gln Asn Val Lys  
                                   355                                  360                                  365  
 Phe Arg Lys Leu Met Gly Ile Lys Ser Glu Asp Glu Ala Gly Cys Ser  
                                   370                                  375                                  380  
 Ser Val Asp Glu Glu Ser Tyr Lys Thr Leu Lys Gln Gln Glu Glu Val  
                                   385                                  390                                  395                                  400  
 Phe Arg Asn Leu Asp Ala Gln Tyr Glu Met Ala Arg Ser Gln Thr His  
                                   405                                  410                                  415  
 Thr Gln Arg Gly Met Gly Leu Gly Phe Thr Ser Ser Met Arg Gly Met  
                                   420                                  425                                  430  
 Asp Ala Val \*  
                                   435

&lt;210&gt; 1343

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1343

Met Gly Arg Ala Trp Cys Gly Met Trp Arg Arg Arg Arg Pro Gly Arg  
   1                                  5                                  10                                  15  
 Arg Ser Ala Val Pro Arg Trp Pro His Leu Ser Ser Gln Ser Gly Val  
                                   20                                  25                                  30  
 Glu Pro Pro Asp Arg Trp Thr Gly Thr Pro Gly Trp Pro Ser Arg Asp  
                                   35                                  40                                  45  
 Gln Glu Ala Pro Gly Ser Met Met Pro Pro Ala Ala Ala Gln Pro Ser  
                                   50                                  55                                  60  
 Ala His Gly Ala Leu Val Pro Pro Ala Thr Ala His Glu Pro Val Asp  
                                   65                                  70                                  75                                  80  
 His Pro Ala Leu His Trp Leu Ala Cys Cys Cys Cys Leu Ser Leu Pro  
                                   85                                  90                                  95  
 Gly Gln Leu Pro Leu Ala Ile Arg Leu Gly Trp Asp Leu Asp Leu Glu  
                                   100                                  105                                  110  
 Ala Gly Pro Ser Ser Gly Lys Leu Cys Pro Arg Ala Arg Arg Trp Gln  
                                   115                                  120                                  125  
 Pro Leu Pro Ser \*  
                                   130                                  132

<210> 1344  
 <211> 229  
 <212> PRT  
 <213> Homo sapiens

<400> 1344  
 Met Lys Thr Leu Phe Leu Gly Val Thr Leu Gly Leu Ala Ala Ala Leu  
 1 5 10 15  
 Ser Phe Thr Leu Glu Glu Glu Asp Ile Thr Gly Thr Trp Tyr Val Lys  
 20 25 30  
 Ala Met Val Val Asp Lys Asp Phe Pro Glu Asp Arg Arg Pro Arg Lys  
 35 40 45  
 Val Ser Pro Val Lys Val Thr Ala Leu Gly Gly Gly Asn Leu Glu Ala  
 50 55 60  
 Thr Phe Thr Phe Met Arg Glu Asp Arg Cys Ile Gln Lys Lys Ile Leu  
 65 70 75 80  
 Met Arg Lys Thr Glu Glu Pro Gly Lys Phe Ser Ala Tyr Gly Gly Arg  
 85 90 95  
 Lys Leu Ile Tyr Leu Gln Glu Leu Pro Gly Thr Asp Asp Tyr Val Phe  
 100 105 110  
 Tyr Cys Lys Asp Gln Arg Arg Gly Gly Leu Arg Tyr Met Gly Lys Leu  
 115 120 125  
 Val Ala Ser Ala Pro Cys Arg Ala Val Pro Leu Ser Pro Arg Arg Leu  
 130 135 140  
 Thr Trp Pro Pro His Leu Gln Val Gly Ile Leu Ile Pro Thr Trp Arg  
 145 150 155 160  
 Pro Trp Lys Asn Leu Arg Asn Trp Cys Ser Thr Arg Asp Ser Arg Arg  
 165 170 175  
 Arg Thr Phe Ser Cys Pro Cys Arg Arg Glu Ala Ala Phe Ser Asn Thr  
 180 185 190  
 Arg Gln Pro Pro Gly Leu His Leu Gln Ser Pro Pro Tyr His Gln Thr  
 195 200 205  
 Gln Ser Pro Asp His Leu Asp Leu Pro Ser Ser His Asp Pro Ser Leu  
 210 215 220  
 Leu Pro Pro Thr \*  
 225 228

<210> 1345  
 <211> 542  
 <212> PRT  
 <213> Homo sapiens

<400> 1345  
 Met Arg Gln Lys Arg Lys Gly Asp Leu Ser Pro Ala Glu Leu Met Met  
 1 5 10 15  
 Leu Thr Ile Gly Asp Val Ile Lys Gln Leu Ile Glu Ala His Glu Gln  
 20 25 30  
 Gly Lys Asp Ile Asp Leu Asn Lys Val Lys Thr Lys Thr Ala Ala Lys  
 35 40 45  
 Tyr Gly Leu Ser Ala Gln Pro Arg Leu Val Asp Ile Ile Ala Ala Val  
 50 55 60  
 Pro Pro Gln Tyr Arg Lys Val Leu Met Pro Lys Leu Lys Ala Lys Pro  
 65 70 75 80  
 Ile Arg Thr Ala Ser Gly Ile Ala Val Val Ala Val Met Cys Lys Pro  
 85 90 95  
 His Arg Cys Pro His Ile Ser Phe Thr Gly Asn Ile Cys Val Tyr Cys  
 100 105 110

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Pro Gly Gly Pro Asp Ser Asp Phe Glu Tyr Ser Thr Gln Ser Tyr Thr
    115          120          125
Gly Tyr Glu Pro Thr Ser Met Arg Ala Ile Arg Ala Arg Tyr Asp Pro
    130          135          140
Phe Leu Gln Thr Arg His Arg Ile Glu Gln Leu Lys Gln Leu Gly His
    145          150          155          160
Ser Val Asp Lys Val Glu Phe Ile Val Met Gly Gly Thr Phe Met Ala
    165          170          175
Leu Pro Glu Glu Tyr Arg Asp Tyr Phe Ile Arg Asn Leu His Asp Ala
    180          185          190
Leu Ser Gly His Thr Ser Asn Asn Ile Tyr Glu Ala Val Lys Tyr Ser
    195          200          205
Glu Arg Ser Leu Thr Lys Cys Ile Gly Ile Thr Ile Glu Thr Arg Pro
    210          215          220
Asp Tyr Cys Met Lys Arg His Leu Ser Asp Met Leu Thr Tyr Gly Cys
    225          230          235          240
Thr Arg Leu Glu Ile Gly Val Gln Ser Val Tyr Glu Asp Val Ala Arg
    245          250          255
Asp Thr Asn Arg Gly His Thr Val Lys Ala Val Cys Glu Ser Phe His
    260          265          270
Leu Ala Lys Asp Ser Gly Phe Lys Val Val Ala His Met Met Pro Asp
    275          280          285
Leu Pro Asn Val Gly Leu Glu Arg Asp Ile Glu Gln Phe Thr Glu Phe
    290          295          300
Phe Glu Asn Pro Ala Phe Arg Pro Asp Gly Leu Lys Leu Tyr Pro Thr
    305          310          315          320
Leu Val Ile Arg Gly Thr Gly Leu Tyr Glu Leu Trp Lys Ser Gly Arg
    325          330          335
Asp Lys Ser Tyr Ser Pro Ser Asp Leu Val Glu Leu Val Ala Arg Ile
    340          345          350
Leu Ala Leu Val Pro Pro Trp Thr Arg Val Tyr Arg Val Gln Arg Asp
    355          360          365
Ile Pro Met Pro Leu Val Ser Ser Gly Val Glu His Gly Asn Leu Arg
    370          375          380
Glu Leu Ala Leu Ala Arg Met Lys Asp Leu Gly Ile Gln Cys Arg Asp
    385          390          395          400
Val Arg Thr Arg Glu Val Gly Ile Gln Glu Ile His His Lys Val Arg
    405          410          415
Pro Tyr Gln Val Glu Leu Val Arg Arg Asp Tyr Val Ala Asn Gly Gly
    420          425          430
Trp Glu Thr Phe Leu Ser Tyr Glu Asp Pro Asp Gln Asp Ile Leu Ile
    435          440          445
Gly Leu Leu Arg Leu Arg Lys Cys Ser Glu Glu Thr Phe Arg Phe Glu
    450          455          460
Leu Gly Gly Gly Val Ser Ile Val Arg Glu Leu His Val Tyr Gly Ser
    465          470          475          480
Val Val Pro Val Ser Ser Arg Asp Pro Thr Lys Phe Gln His Gln Gly
    485          490          495          500
Phe Gly Met Leu Leu Met Glu Glu Ala Glu Arg Ile Ala Arg Glu Glu
    505          510
His Gly Ser Gly Lys Ile Ala Val Ile Ser Gly Val Asp Val Leu Gly
    515          520          525
Gln Arg Gln Arg Gly Gly His His Arg Ser Cys Ser Leu *
    530          535          540 541

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<210> 1346  
 <211> 548  
 <212> PRT  
 <213> Homo sapiens

<400> 1346

Met	Arg	Gln	Lys	Arg	Lys	Gly	Asp	Leu	Ser	Pro	Ala	Glu	Leu	Met	Met
1				5					10					15	
Leu	Thr	Ile	Gly	Asp	Val	Ile	Lys	Gln	Leu	Ile	Glu	Ala	His	Glu	Gln
			20					25					30		
Gly	Lys	Asp	Ile	Asp	Leu	Asn	Lys	Val	Lys	Thr	Lys	Thr	Ala	Ala	Lys
		35					40					45			
Tyr	Gly	Leu	Ser	Ala	Gln	Pro	Arg	Leu	Val	Asp	Ile	Ile	Ala	Ala	Val
		50					55				60				
Pro	Pro	Gln	Tyr	Arg	Lys	Val	Leu	Met	Pro	Lys	Leu	Lys	Ala	Lys	Pro
		65			70					75				80	
Ile	Arg	Thr	Ala	Ser	Gly	Ile	Ala	Val	Val	Ala	Val	Met	Cys	Lys	Pro
				85					90					95	
His	Arg	Cys	Pro	His	Ile	Ser	Phe	Thr	Gly	Asn	Ile	Cys	Val	Tyr	Cys
			100					105					110		
Pro	Gly	Gly	Pro	Asp	Ser	Asp	Phe	Glu	Tyr	Ser	Thr	Gln	Ser	Tyr	Thr
		115					120					125			
Gly	Tyr	Glu	Pro	Thr	Ser	Met	Arg	Ala	Ile	Arg	Ala	Arg	Tyr	Asp	Pro
		130					135				140				
Phe	Leu	Gln	Thr	Arg	His	Arg	Ile	Glu	Gln	Leu	Lys	Gln	Leu	Gly	His
					150					155				160	
Ser	Val	Asp	Lys	Val	Glu	Phe	Ile	Val	Met	Gly	Gly	Thr	Phe	Met	Ala
				165					170					175	
Leu	Pro	Glu	Glu	Tyr	Arg	Asp	Tyr	Phe	Ile	Arg	Asn	Leu	His	Asp	Ala
			180					185					190		
Leu	Ser	Gly	His	Thr	Ser	Asn	Asn	Ile	Tyr	Glu	Ala	Val	Lys	Tyr	Ser
		195				200						205			
Glu	Arg	Ser	Leu	Thr	Lys	Cys	Ile	Gly	Ile	Thr	Ile	Glu	Thr	Arg	Pro
		210				215					220				
Asp	Tyr	Cys	Met	Lys	Arg	His	Leu	Ser	Asp	Met	Leu	Thr	Tyr	Gly	Cys
					230					235				240	
Thr	Arg	Leu	Glu	Ile	Gly	Val	Gln	Ser	Val	Tyr	Glu	Asp	Val	Ala	Arg
				245					250					255	
Asp	Thr	Asn	Arg	Gly	His	Thr	Val	Lys	Ala	Val	Cys	Glu	Ser	Phe	His
			260					265					270		
Leu	Ala	Lys	Asp	Ser	Gly	Phe	Lys	Val	Val	Ala	His	Met	Met	Pro	Asp
		275					280					285			
Leu	Pro	Asn	Val	Gly	Leu	Glu	Arg	Asp	Ile	Glu	Gln	Phe	Thr	Glu	Phe
		290				295					300				
Phe	Glu	Asn	Pro	Ala	Phe	Arg	Pro	Asp	Gly	Leu	Lys	Leu	Tyr	Pro	Thr
					310					315				320	
Leu	Val	Ile	Arg	Gly	Thr	Gly	Leu	Tyr	Glu	Leu	Trp	Lys	Ser	Gly	Arg
				325					330					335	
Asp	Lys	Ser	Tyr	Ser	Pro	Ser	Asp	Leu	Val	Glu	Leu	Val	Ala	Arg	Ile
			340					345					350		
Leu	Ala	Leu	Val	Pro	Pro	Trp	Thr	Arg	Val	Tyr	Arg	Val	Gln	Arg	Asp
		355					360					365			
Ile	Pro	Met	Pro	Leu	Val	Ser	Ser	Gly	Val	Glu	His	Gly	Asn	Leu	Arg
		370				375					380				
Glu	Leu	Ala	Leu	Ala	Arg	Met	Lys	Asp	Leu	Gly	Ile	Gln	Cys	Arg	Asp
					390					395				400	
Val	Arg	Thr	Arg	Glu	Val	Gly	Ile	Gln	Glu	Ile	His	His	Lys	Val	Arg
				405					410					415	
Pro	Tyr	Gln	Val	Glu	Leu	Val	Arg	Arg	Asp	Tyr	Val	Ala	Asn	Gly	Gly
			420					425					430		
Trp	Glu	Thr	Phe	Leu	Ser	Tyr	Glu	Asp	Pro	Asp	Gln	Asp	Ile	Leu	Ile
		435					440					445			
Gly	Leu	Leu	Arg	Leu	Arg	Lys	Cys	Ser	Glu	Glu	Thr	Phe	Arg	Phe	Glu
		450				455					460				
Leu	Gly	Gly	Gly	Val	Ser	Ile	Val	Arg	Glu	Leu	His	Val	Tyr	Gly	Ser
					470					475				480	
Val	Val	Pro	Val	Ser	Ser	Arg	Asp	Pro	Thr	Lys	Phe	Gln	His	Gln	Gly
				485					490					495	
Phe	Gly	Met	Leu	Leu	Met	Glu	Glu	Ala	Glu	Arg	Ile	Ala	Arg	Glu	Glu
			500					505					510		

His Gly Ser Gly Lys Ile Ala Val Ile Ser Gly Val Gly Thr Arg Asn  
                   515                                  520                                  525  
 Tyr Tyr Arg Lys Ile Gly Tyr Arg Leu Gln Gly Pro Tyr Met Val Lys  
           530                                  535                                  540  
 Met Leu Lys \*  
 545          547

<210> 1347  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<400> 1347  
 Met Ala Glu Leu Gln Gln Leu Arg Val Gln Glu Ala Val Glu Ser Met  
   1                                  5                                  10                                  15  
 Val Lys Ser Leu Glu Arg Glu Asn Ile Arg Lys Met Gln Gly Leu Met  
                                   20                                  25                                  30  
 Phe Arg Cys Ser Ala Ser Cys Cys Glu Asp Ser Gln Ala Ser Met Lys  
                                   35                                  40                                  45  
 Gln Val His Gln Cys Ile Glu Arg Cys His Val Pro Leu Ala Gln Ala  
                                   50                                  55                                  60  
 Gln Ala Leu Val Thr Ser Glu Leu Glu Lys Phe Gln Asp Arg Leu Ala  
                                   65                                  70                                  75                                  80  
 Arg Cys Thr Met His Cys Asn Asp Lys Ala Lys Asp Ser Ile Asp Ala  
                                   85                                  90                                  95  
 Gly Ser Lys Glu Leu Gln Val Lys Gln Gln Leu Asp Ser Cys Val Thr  
                                   100                                  105                                  110  
 Lys Cys Val Asp Asp His Met His Leu Ile Pro Thr Met Thr Lys Lys  
                                   115                                  120                                  125  
 Met Lys Glu Ala Leu Leu Ser Ile Gly Lys \*  
           130                                  135                                  138

<210> 1348  
 <211> 768  
 <212> PRT  
 <213> Homo sapiens

<400> 1348  
 Met Asn Arg Glu Asp Arg Asn Val Leu Arg Met Lys Glu Arg Glu Arg  
   1                                  5                                  10                                  15  
 Arg Asn Gln Glu Ile Gln Gln Gly Glu Asp Ala Phe Pro Pro Ser Ser  
                                   20                                  25                                  30  
 Pro Leu Phe Ala Glu Pro Tyr Lys Val Thr Ser Lys Glu Asp Lys Leu  
                                   35                                  40                                  45  
 Ser Ser Arg Ile Gln Ser Met Leu Gly Asn Tyr Asp Glu Met Lys Asp  
                                   50                                  55                                  60  
 Phe Ile Gly Asp Arg Ser Ile Pro Lys Leu Val Ala Ile Pro Lys Pro  
                                   65                                  70                                  75                                  80  
 Thr Val Pro Pro Ser Ala Asp Glu Lys Ser Asn Pro Asn Phe Phe Glu  
                                   85                                  90                                  95  
 Gln Arg His Gly Gly Ser His Gln Ser Ser Lys Trp Thr Pro Val Gly  
                                   100                                  105                                  110  
 Pro Ala Pro Ser Thr Ser Gln Ser Gln Lys Arg Ser Ser Gly Leu Gln  
                                   115                                  120                                  125  
 Ser Gly His Ser Ser Gln Arg Thr Ser Ala Gly Ser Ser Ser Gly Thr  
                                   130                                  135                                  140  
 Asn Ser Ser Gly Gln Arg His Asp Arg Glu Ser Tyr Asn Asn Ser Gly  
           145                                  150                                  155                                  160

Ser	Ser	Ser	Arg	Lys	Lys	Gly	Gln	His	Gly	Ser	Glu	His	Ser	Lys	Ser
				165					170					175	
Arg	Ser	Ser	Ser	Pro	Gly	Lys	Pro	Gln	Ala	Val	Ser	Ser	Leu	Asn	Ser
				180				185						190	
Ser	His	Ser	Arg	Ser	His	Gly	Asn	Asp	His	His	Ser	Lys	Glu	His	Gln
	195						200					205			
Arg	Ser	Lys	Ser	Pro	Arg	Asp	Pro	Asp	Ala	Asn	Trp	Asp	Ser	Pro	Ser
	210					215					220				
Arg	Val	Pro	Phe	Ser	Ser	Gly	Gln	His	Ser	Thr	Gln	Ser	Phe	Pro	Pro
	225				230						235				240
Ser	Leu	Met	Ser	Lys	Ser	Asn	Ser	Met	Leu	Gln	Lys	Pro	Thr	Ala	Tyr
				245					250					255	
Val	Arg	Pro	Met	Asp	Gly	Gln	Glu	Ser	Met	Glu	Pro	Lys	Leu	Ser	Ser
			260					265					270		
Glu	His	Tyr	Ser	Ser	Gln	Ser	His	Gly	Asn	Ser	Met	Thr	Glu	Leu	Lys
	275						280					285			
Pro	Ser	Ser	Lys	Ala	His	Leu	Thr	Lys	Leu	Lys	Ile	Pro	Ser	Gln	Pro
	290					295					300				
Leu	Asp	Ala	Ser	Ala	Ser	Gly	Asp	Val	Ser	Cys	Val	Asp	Glu	Ile	Leu
	305				310					315					320
Lys	Glu	Met	Thr	His	Ser	Trp	Pro	Pro	Pro	Leu	Thr	Ala	Ile	His	Thr
				325					330					335	
Pro	Cys	Lys	Thr	Glu	Pro	Ser	Lys	Phe	Pro	Phe	Pro	Thr	Lys	Glu	Ser
			340					345					350		
Gln	Gln	Ser	Asn	Phe	Gly	Thr	Gly	Glu	Gln	Lys	Arg	Tyr	Asn	Pro	Ser
		355					360					365			
Lys	Thr	Ser	Asn	Gly	His	Gln	Ser	Lys	Ser	Met	Leu	Lys	Asp	Asp	Leu
	370					375					380				
Lys	Leu	Ser	Ser	Ser	Glu	Asp	Ser	Asp	Gly	Glu	Gln	Asp	Cys	Asp	Lys
	385				390					395					400
Thr	Met	Pro	Arg	Ser	Thr	Pro	Gly	Ser	Asn	Ser	Glu	Pro	Ser	His	His
				405					410					415	
Asn	Ser	Glu	Gly	Ala	Asp	Asn	Ser	Arg	Asp	Asp	Ser	Ser	Ser	His	Ser
			420					425					430		
Gly	Ser	Glu	Ser	Ser	Ser	Gly	Ser	Asp	Ser	Glu	Ser	Glu	Ser	Ser	Ser
	435						440					445			
Ser	Asp	Ser	Glu	Ala	Asn	Glu	Pro	Ser	Gln	Ser	Ala	Ser	Pro	Glu	Pro
	450					455					460				
Glu	Pro	Pro	Pro	Thr	Asn	Lys	Trp	Gln	Leu	Asp	Asn	Trp	Leu	Asn	Lys
	465				470					475					480
Val	Asn	Pro	His	Lys	Val	Ser	Pro	Ala	Ser	Ser	Val	Asp	Ser	Asn	Ile
				485					490					495	
Pro	Ser	Ser	Gln	Gly	Tyr	Lys	Lys	Glu	Gly	Arg	Glu	Gln	Gly	Thr	Gly
			500					505					510		
Asn	Ser	Tyr	Thr	Asp	Thr	Ser	Gly	Pro	Lys	Glu	Thr	Ser	Ser	Ala	Thr
	515						520					525			
Pro	Gly	Arg	Asp	Ser	Lys	Thr	Ile	Gln	Lys	Gly	Ser	Glu	Ser	Gly	Arg
	530					535					540				
Gly	Arg	Gln	Lys	Ser	Pro	Ala	Gln	Ser	Asp	Ser	Thr	Thr	Gln	Arg	Arg
	545				550					555					560
Thr	Val	Gly	Lys	Lys	Gln	Pro	Lys	Lys	Ala	Glu	Lys	Ala	Ala	Ala	Glu
				565					570					575	
Glu	Pro	Arg	Gly	Gly	Leu	Lys	Ile	Glu	Ser	Glu	Thr	Pro	Val	Asp	Leu
			580					585					590		
Ala	Ser	Ser	Met	Pro	Ser	Ser	Arg	His	Lys	Ala	Ala	Thr	Lys	Gly	Ser
	595						600					605			
Arg	Lys	Pro	Asn	Ile	Lys	Lys	Glu	Ser	Lys	Ser	Ser	Pro	Arg	Pro	Thr
	610					615					620				
Ala	Glu	Lys	Lys	Lys	Tyr	Lys	Ser	Thr	Ser	Lys	Ser	Ser	Gln	Lys	Ser
	625				630					635					640
Arg	Glu	Ile	Ile	Glu	Thr	Asp	Thr	Ser	Ser	Ser	Asp	Ser	Asp	Glu	Ser
				645					650					655	
Glu	Ser	Leu	Pro	Pro	Ser	Ser	Gln	Thr	Pro	Lys	Tyr	Pro	Glu	Ser	Asn
			660					665					670		

Arg	Thr	Pro	Val	Lys	Pro	Ser	Ser	Val	Glu	Glu	Glu	Asp	Ser	Phe	Phe
		675					680					685			
Arg	Gln	Arg	Met	Phe	Ser	Pro	Met	Glu	Glu	Lys	Glu	Leu	Leu	Ser	Pro
	690					695					700				
Leu	Ser	Glu	Pro	Asp	Asp	Arg	Tyr	Pro	Leu	Ile	Val	Lys	Ile	Asp	Leu
705					710					715					720
Asn	Leu	Leu	Thr	Arg	Ile	Pro	Gly	Lys	Pro	Tyr	Lys	Glu	Thr	Glu	Pro
				725					730					735	
Pro	Lys	Gly	Glu	Lys	Lys	Asn	Val	Pro	Glu	Lys	His	Thr	Arg	Glu	Ala
			740					745					750		
Gln	Lys	Gln	Ala	Ser	Glu	Lys	Val	Ser	Asn	Lys	Gly	Lys	Arg	Glu	Ala
		755					760					765			768

<210> 1349  
 <211> 834  
 <212> PRT  
 <213> Homo sapiens

<400> 1349

Met	Lys	Leu	Leu	Gly	Arg	Gln	Gln	Pro	Asp	Thr	Glu	Leu	Glu	Ile	Gln
1				5					10					15	
Gln	Lys	Cys	Gly	Phe	Ser	Glu	Leu	Tyr	Ser	Trp	Gln	Arg	Glu	Arg	Lys
		20						25					30		
Val	Lys	Thr	Glu	Phe	Cys	Leu	His	Asp	Gly	Pro	Pro	Tyr	Ala	Asn	Gly
		35					40						45		
Asp	Pro	His	Val	Gly	His	Ala	Leu	Asn	Lys	Ile	Leu	Lys	Asp	Ile	Ala
	50					55					60				
Asn	Arg	Phe	His	Met	Met	Asn	Gly	Ser	Lys	Ile	His	Phe	Val	Pro	Gly
	65				70					75				80	
Trp	Asp	Cys	His	Gly	Leu	Pro	Ile	Glu	Ile	Lys	Val	Leu	Ser	Glu	Leu
			85					90						95	
Gly	Arg	Glu	Ala	Gln	Asn	Leu	Ser	Ala	Met	Glu	Ile	Arg	Lys	Lys	Ala
			100					105					110		
Arg	Ser	Phe	Ala	Lys	Ala	Ala	Ile	Glu	Lys	Gln	Lys	Ser	Ala	Phe	Ile
		115					120						125		
Arg	Trp	Gly	Ile	Met	Ala	Asp	Trp	Asn	Asn	Cys	Tyr	Tyr	Thr	Phe	Asp
	130					135					140				
Gly	Lys	Tyr	Glu	Ala	Lys	Gln	Leu	Arg	Thr	Phe	Tyr	Gln	Met	Tyr	Asp
	145				150					155				160	
Lys	Gly	Leu	Val	Tyr	Arg	Ser	Tyr	Lys	Pro	Val	Phe	Trp	Ser	Pro	Ser
			165					170						175	
Ser	Arg	Thr	Ala	Leu	Ala	Glu	Ala	Glu	Leu	Glu	Tyr	Asn	Pro	Glu	His
		180						185					190		
Val	Ser	Arg	Ser	Ile	Tyr	Val	Lys	Phe	Pro	Leu	Leu	Lys	Pro	Ser	Pro
		195					200					205			
Lys	Leu	Ala	Ser	Leu	Ile	Asp	Gly	Ser	Ser	Pro	Val	Ser	Ile	Leu	Val
	210					215					220				
Trp	Thr	Thr	Gln	Pro	Trp	Thr	Ile	Pro	Ala	Asn	Glu	Ala	Val	Cys	Tyr
	225				230					235				240	
Met	Pro	Glu	Ser	Lys	Tyr	Ala	Val	Val	Lys	Cys	Ser	Lys	Ser	Gly	Asp
			245						250					255	
Leu	Tyr	Val	Leu	Ala	Ala	Asp	Lys	Val	Ala	Ser	Val	Ala	Ser	Thr	Leu
		260					265						270		
Glu	Thr	Thr	Phe	Glu	Thr	Ile	Ser	Thr	Leu	Ser	Gly	Val	Asp	Leu	Glu
		275				280					285				
Asn	Gly	Thr	Cys	Ser	His	Pro	Leu	Ile	Pro	Asp	Lys	Ala	Ser	Pro	Leu
	290					295					300				
Leu	Pro	Ala	Asn	His	Val	Thr	Met	Ala	Lys	Gly	Thr	Gly	Leu	Val	His
	305				310					315					320



Thr Ala Pro Ala His Gly Met Glu Asp Tyr Gly Val Ala Ser Gln His  
 325 330 335  
 Asn Leu Pro Met Asp Cys Leu Val Asp Glu Asp Gly Val Phe Thr Asp  
 340 345 350  
 Val Ala Gly Pro Glu Leu Gln Asn Lys Ala Val Leu Glu Glu Gly Thr  
 355 360 365  
 Asp Val Val Ile Lys Met Leu Gln Thr Ala Lys Asn Leu Leu Lys Glu  
 370 375 380  
 Glu Lys Leu Val His Ser Tyr Pro Tyr Asp Trp Arg Thr Lys Lys Pro  
 385 390 395 400  
 Val Val Ile Arg Ala Ser Lys Gln Trp Phe Ile Asn Ile Thr Asp Ile  
 405 410 415  
 Lys Thr Ala Ala Lys Glu Leu Leu Lys Lys Val Lys Phe Ile Pro Gly  
 420 425 430  
 Ser Ala Leu Asn Gly Met Val Glu Met Met Asp Arg Arg Pro Tyr Trp  
 435 440 445  
 Cys Ile Ser Arg Gln Arg Val Trp Gly Val Pro Ile Pro Val Phe His  
 450 455 460  
 His Lys Thr Lys Asp Glu Tyr Leu Ile Asn Ser Gln Thr Thr Glu His  
 465 470 475 480  
 Ile Val Lys Leu Val Glu Gln His Gly Ser Asp Ile Trp Trp Thr Leu  
 485 490 495  
 Pro Pro Glu Gln Leu Leu Pro Lys Glu Val Leu Ser Glu Val Gly Gly  
 500 505 510  
 Pro Asp Ala Leu Glu Tyr Val Pro Gly Gln Asp Ile Leu Asp Ile Trp  
 515 520 525  
 Phe Asp Ser Gly Thr Ser Trp Ser Tyr Val Leu Pro Gly Pro Asp Gln  
 530 535 540  
 Arg Ala Asp Leu Tyr Leu Glu Gly Lys Asp Gln Leu Gly Gly Trp Phe  
 545 550 555 560  
 Gln Ser Ser Leu Leu Thr Ser Val Ala Ala Arg Lys Arg Ala Pro Tyr  
 565 570 575  
 Lys Thr Val Ile Val His Gly Phe Thr Leu Gly Glu Lys Gly Glu Lys  
 580 585 590  
 Met Ser Lys Ser Leu Gly Asn Val Ile His Pro Asp Val Val Val Asn  
 595 600 605  
 Gly Gly Gln Asp Gln Ser Lys Glu Pro Pro Tyr Gly Ala Asp Val Leu  
 610 615 620  
 Arg Trp Trp Val Ala Asp Ser Asn Val Phe Thr Glu Val Ala Ile Gly  
 625 630 635 640  
 Pro Ser Val Leu Asn Ala Ala Arg Asp Asp Ile Ser Lys Leu Arg Asn  
 645 650 655  
 Thr Leu Arg Phe Leu Leu Gly Asn Val Ala Asp Phe Asn Pro Glu Thr  
 660 665 670  
 Asp Ser Ile Pro Val Asn Asp Met Tyr Val Ile Asp Gln Tyr Met Leu  
 675 680 685  
 His Leu Leu Gln Asp Leu Ala Asn Lys Ile Thr Glu Leu Tyr Lys Gln  
 690 695 700  
 Tyr Asp Phe Gly Lys Val Val Arg Leu Leu Arg Thr Phe Tyr Thr Arg  
 705 710 715 720  
 Glu Leu Ser Asn Phe Tyr Phe Ser Ile Ile Lys Asp Arg Leu Tyr Cys  
 725 730 735  
 Glu Lys Glu Asn Asp Pro Lys Arg Arg Ser Cys Gln Thr Ala Leu Val  
 740 745 750  
 Glu Ile Leu Asp Val Ile Val Arg Ser Phe Ala Pro Ile Leu Pro His  
 755 760 765  
 Leu Ala Glu Glu Val Phe Gln His Ile Pro Tyr Ile Lys Glu Pro Lys  
 770 775 780  
 Ser Val Phe Arg Thr Gly Trp Ile Ser Thr Ser Ser Ile Trp Lys Lys  
 785 790 795 800  
 Pro Gly Leu Glu Glu Ala Val Arg Val Arg Val Gln Cys Glu Thr His  
 805 810 815  
 Phe Leu Glu Ala Ser Leu Ala Lys Met Gln Leu Ser Thr Arg Leu Ser  
 820 825 830

Leu \*  
833

<210> 1350  
<211> 590  
<212> PRT  
<213> Homo sapiens

<400> 1350  
Met Arg Pro Arg Arg Pro Leu Val Phe Met Ser Leu Val Cys Ala Leu  
1 5 10 15  
Leu Asn Thr Cys Gln Ala His Arg Val His Asp Asp Lys Pro Asn Ile  
20 25 30  
Val Leu Ile Met Val Asp Asp Leu Gly Ile Gly Asp Leu Gly Cys Tyr  
35 40 45  
Gly Asn Asp Thr Met Arg Thr Pro His Ile Asp Arg Leu Ala Arg Glu  
50 55 60  
Gly Val Arg Leu Thr Gln His Ile Ser Ala Ala Ser Leu Cys Ser Pro  
65 70 75 80  
Ser Arg Ser Ala Phe Leu Thr Gly Arg Tyr Pro Ile Arg Ser Gly Met  
85 90 95  
Val Ser Ser Gly Asn Arg Arg Val Ile Gln Asn Leu Ala Val Pro Ala  
100 105 110  
Gly Leu Pro Leu Asn Glu Thr Thr Leu Ala Ala Leu Leu Lys Lys Gln  
115 120 125  
Gly Tyr Ser Thr Gly Leu Ile Gly Lys Trp His Gln Gly Leu Asn Cys  
130 135 140  
Asp Ser Arg Ser Asp Gln Cys His His Pro Tyr Asn Tyr Gly Phe Asp  
145 150 155 160  
Tyr Tyr Tyr Gly Met Pro Phe Thr Leu Val Asp Ser Cys Trp Pro Asp  
165 170 175  
Pro Ser Arg Asn Thr Glu Leu Ala Phe Glu Ser Gln Leu Trp Leu Cys  
180 185 190  
Val Gln Leu Val Ala Ile Ala Ile Leu Thr Leu Thr Phe Gly Lys Leu  
195 200 205  
Ser Gly Trp Val Ser Val Pro Trp Leu Leu Ile Phe Ser Met Ile Leu  
210 215 220  
Phe Ile Phe Leu Leu Gly Tyr Ala Trp Phe Ser Ser His Thr Ser Pro  
225 230 235 240  
Leu Tyr Trp Asp Cys Leu Leu Met Arg Gly His Glu Ile Thr Glu Gln  
245 250 255  
Pro Met Lys Ala Glu Arg Ala Gly Ser Ile Met Val Lys Glu Ala Ile  
260 265 270  
Ser Phe Leu Glu Arg His Ser Lys Glu Thr Phe Leu Leu Phe Phe Ser  
275 280 285  
Phe Leu His Val His Thr Pro Leu Pro Thr Thr Asp Asp Phe Thr Gly  
290 295 300  
Thr Ser Lys His Gly Leu Tyr Gly Asp Asn Val Glu Glu Met Asp Ser  
305 310 315 320  
Met Val Gly Lys Ile Leu Asp Ala Ile Asp Asp Phe Gly Leu Arg Asn  
325 330 335  
Asn Thr Leu Val Tyr Phe Thr Ser Asp His Gly Gly His Leu Glu Ala  
340 345 350  
Arg Arg Gly His Ala Gln Leu Gly Trp Asn Gly Ile Tyr Lys Gly  
355 360 365  
Gly Lys Gly Met Gly Gly Trp Glu Gly Gly Ile Arg Val Pro Gly Ile  
370 375 380  
Val Arg Trp Pro Gly Lys Val Pro Ala Gly Arg Leu Ile Lys Glu Pro  
385 390 395 400  
Thr Ser Leu Met Asp Ile Leu Pro Thr Val Ala Ser Val Ser Gly Gly  
405 410 415

Ser Leu Pro Gln Asp Arg Val Ile Asp Gly Arg Asp Leu Met Pro Leu  
 420 425 430  
 Leu Gln Gly Asn Val Arg His Ser Glu His Glu Phe Leu Phe His Tyr  
 435 440 445  
 Cys Gly Ser Tyr Leu His Ala Val Arg Trp Ile Pro Lys Asp Asp Ser  
 450 455 460  
 Gly Ser Val Trp Lys Ala His Tyr Val Thr Pro Val Phe Gln Pro Pro  
 465 470 475 480  
 Ala Ser Gly Gly Cys Tyr Val Thr Ser Leu Cys Arg Cys Phe Gly Glu  
 485 490 495  
 Gln Val Thr Tyr His Asn Pro Pro Leu Leu Phe Asp Leu Ser Arg Asp  
 500 505 510  
 Pro Ser Glu Ser Thr Pro Leu Thr Pro Ala Thr Glu Pro Leu Tyr Asp  
 515 520 525  
 Phe Val Ile Lys Lys Val Ala Asn Ala Leu Lys Glu His Gln Glu Thr  
 530 535 540  
 Ile Val Pro Val Thr Tyr Gln Leu Ser Glu Leu Asn Gln Gly Arg Thr  
 545 550 555 560  
 Trp Leu Lys Pro Cys Cys Gly Val Phe Pro Phe Cys Leu Cys Asp Lys  
 565 570 575  
 Glu Glu Glu Val Ser Gln Pro Arg Gly Pro Asn Glu Lys Arg  
 580 585 590

&lt;210&gt; 1351

&lt;211&gt; 749

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1351

Met Leu Gly Thr Leu Arg Ala Met Glu Gly Glu Asp Val Glu Asp Asp  
 1 5 10 15  
 Gln Leu Leu Gln Lys Leu Arg Ala Ser Arg Arg Arg Phe Gln Arg Arg  
 20 25 30  
 Met Gln Arg Leu Ile Glu Lys Tyr Asn Gln Pro Phe Glu Asp Thr Pro  
 35 40 45  
 Val Val Gln Met Ala Thr Leu Thr Tyr Glu Thr Pro Gln Gly Leu Arg  
 50 55 60  
 Ile Trp Gly Gly Arg Leu Ile Lys Glu Arg Asn Glu Gly Glu Ile Gln  
 65 70 75 80  
 Asp Ser Ser Met Lys Pro Ala Asp Arg Thr Asp Gly Ser Val Gln Ala  
 85 90 95  
 Ala Ala Trp Gly Pro Glu Leu Pro Ser His Arg Thr Val Leu Gly Ala  
 100 105 110  
 Asp Ser Lys Ser Gly Glu Val Asp Ala Thr Ser Asp Gln Glu Glu Ser  
 115 120 125  
 Val Ala Trp Ala Leu Ala Pro Ala Val Pro Gln Ser Pro Leu Lys Asn  
 130 135 140  
 Glu Leu Arg Arg Lys Tyr Leu Thr Gln Val Asp Ile Leu Leu Gln Gly  
 145 150 155 160  
 Ala Glu Tyr Phe Glu Cys Ala Gly Asn Arg Ala Gly Arg Asp Val Arg  
 165 170 175  
 Val Thr Pro Leu Pro Ser Leu Ala Ser Pro Ala Val Pro Ala Pro Gly  
 180 185 190  
 Tyr Cys Ser Arg Ile Ser Arg Lys Ser Pro Gly Asp Pro Ala Lys Pro  
 195 200 205  
 Ala Ser Ser Pro Arg Glu Trp Asp Pro Leu His Pro Ser Ser Thr Asp  
 210 215 220  
 Met Ala Leu Val Pro Arg Asn Asp Ser Leu Ser Leu Gln Glu Thr Ser  
 225 230 235 240  
 Ser Ser Ser Phe Leu Ser Ser Gln Pro Phe Glu Asp Asp Asp Ile Cys  
 245 250 255

Asn	Val	Thr	Ile	Ser	Asp	Leu	Tyr	Ala	Gly	Met	Leu	His	Ser	Met	Ser	260	265	270
Arg	Leu	Leu	Ser	Thr	Lys	Pro	Ser	Ser	Ile	Ile	Ser	Thr	Lys	Thr	Phe	275	280	285
Ile	Met	Gln	Asn	Trp	Asn	Cys	Arg	Arg	Arg	His	Arg	Tyr	Lys	Ser	Arg	290	295	300
Met	Asn	Lys	Thr	Tyr	Cys	Lys	Gly	Ala	Arg	Arg	Ser	Gln	Arg	Ser	Ser	305	310	315
Lys	Glu	Asn	Phe	Ile	Pro	Cys	Ser	Glu	Pro	Val	Lys	Gly	Thr	Gly	Ala	320	325	330
Leu	Arg	Asp	Cys	Lys	Asn	Val	Leu	Asp	Val	Ser	Cys	Arg	Lys	Thr	Gly	340	345	350
Leu	Lys	Leu	Glu	Lys	Ala	Phe	Leu	Glu	Val	Asn	Arg	Pro	Gln	Ile	His	355	360	365
Lys	Leu	Asp	Pro	Ser	Trp	Lys	Glu	Arg	Lys	Val	Thr	Pro	Ser	Lys	Tyr	370	375	380
Ser	Ser	Leu	Ile	Tyr	Phe	Asp	Ser	Ser	Ala	Thr	Tyr	Asn	Leu	Asp	Glu	385	390	395
Glu	Asn	Arg	Phe	Arg	Thr	Leu	Lys	Trp	Leu	Ile	Ser	Pro	Val	Lys	Ile	400	405	410
Val	Ser	Arg	Pro	Thr	Ile	Arg	Gln	Gly	His	Gly	Glu	Asn	Arg	Gln	Arg	415	420	425
Glu	Ile	Glu	Ile	Arg	Phe	Asp	Gln	Leu	His	Arg	Glu	Tyr	Cys	Leu	Ser	430	435	440
Pro	Arg	Asn	Gln	Pro	Arg	Arg	Met	Cys	Leu	Pro	Asp	Ser	Trp	Ala	Met	445	450	455
Asn	Met	Tyr	Arg	Gly	Gly	Pro	Ala	Ser	Pro	Gly	Gly	Leu	Gln	Gly	Leu	460	465	470
Glu	Thr	Arg	Arg	Leu	Ser	Leu	Pro	Ser	Ser	Lys	Ala	Lys	Ala	Lys	Ser	475	480	485
Leu	Ser	Glu	Ala	Phe	Glu	Asn	Leu	Gly	Lys	Arg	Ser	Leu	Glu	Ala	Gly	490	495	500
Arg	Cys	Leu	Pro	Lys	Ser	Asp	Ser	Ser	Ser	Ser	Leu	Pro	Lys	Thr	Asn	505	510	515
Pro	Thr	His	Ser	Ala	Thr	Arg	Pro	Gln	Gln	Thr	Ser	Asp	Leu	His	Val	520	525	530
Gln	Gly	Asn	Ser	Ser	Gly	Ile	Phe	Arg	Lys	Ser	Val	Ser	Pro	Ser	Lys	535	540	545
Thr	Leu	Ser	Val	Pro	Asp	Lys	Glu	Val	Pro	Gly	His	Gly	Arg	Asn	Arg	550	555	560
Tyr	Asp	Glu	Ile	Lys	Glu	Glu	Phe	Asp	Lys	Leu	His	Gln	Lys	Tyr	Cys	565	570	575
Leu	Lys	Ser	Pro	Gly	Gln	Met	Thr	Val	Pro	Leu	Cys	Ile	Gly	Val	Ser	580	585	590
Thr	Asp	Lys	Ala	Ser	Met	Glu	Val	Arg	Tyr	Gln	Thr	Glu	Gly	Phe	Leu	595	600	605
Gly	Lys	Leu	Asn	Pro	Asp	Pro	His	Phe	Gln	Gly	Phe	Gln	Lys	Leu	Pro	610	615	620
Ser	Ser	Pro	Leu	Gly	Cys	Arg	Lys	Ser	Leu	Leu	Gly	Ser	Thr	Ala	Ile	625	630	635
Glu	Ala	Pro	Ser	Ser	Thr	Cys	Val	Ala	Arg	Ala	Ile	Thr	Arg	Asp	Gly	640	645	650
Thr	Arg	Asp	His	Gln	Phe	Pro	Ala	Lys	Arg	Pro	Arg	Leu	Ser	Glu	Pro	655	660	665
Gln	Gly	Ser	Gly	Arg	Gln	Gly	Asn	Ser	Leu	Gly	Ala	Ser	Asp	Gly	Val	670	675	680
Asp	Asn	Thr	Val	Arg	Pro	Gly	Asp	Gln	Gly	Ser	Ser	Ser	Gln	Pro	Asn	685	690	695
Ser	Glu	Glu	Arg	Gly	Glu	Asn	Thr	Ser	Tyr	Arg	Met	Glu	Glu	Lys	Ser	700	705	710
Asp	Phe	Met	Leu	Glu	Lys	Leu	Glu	Thr	Lys	Ser	Val	*				715	720	725
																730	735	740
																745	748	

<210> 1352  
 <211> 214  
 <212> PRT  
 <213> Homo sapiens

<400> 1352  
 Met Asp Pro Ala Leu Ala Ala Gln Met Ser Glu Ala Val Ala Glu Lys  
 1 5 10 15  
 Met Leu Gln Tyr Arg Arg Asp Thr Ala Gly Trp Lys Ile Cys Arg Glu  
 20 25 30  
 Gly Asn Gly Val Ser Val Ser Trp Arg Pro Ser Val Glu Phe Pro Gly  
 35 40 45  
 Asn Leu Tyr Arg Gly Glu Gly Ile Val Tyr Gly Thr Leu Glu Glu Val  
 50 55 60  
 Trp Asp Cys Val Lys Pro Ala Val Gly Gly Leu Arg Val Lys Trp Asp  
 65 70 75 80  
 Glu Asn Val Thr Gly Phe Glu Ile Ile Gln Ser Ile Thr Asp Thr Leu  
 85 90 95  
 Cys Val Ser Arg Thr Ser Thr Pro Ser Ala Ala Met Lys Leu Ile Ser  
 100 105 110  
 Pro Arg Asp Phe Val Asp Leu Val Leu Val Lys Arg Tyr Glu Asp Gly  
 115 120 125  
 Thr Ile Ser Ser Asn Ala Thr His Val Glu His Pro Leu Cys Pro Pro  
 130 135 140  
 Lys Pro Gly Phe Val Arg Gly Phe Asn His Pro Cys Gly Cys Phe Cys  
 145 150 155 160  
 Glu Pro Leu Pro Gly Glu Pro Thr Lys Thr Asn Leu Val Thr Phe Phe  
 165 170 175  
 His Thr Asp Leu Ser Gly Tyr Leu Pro Gln Asn Val Val Asp Ser Phe  
 180 185 190  
 Phe Pro Arg Ser Met Thr Arg Phe Tyr Ala Asn Leu Gln Lys Ala Val  
 195 200 205  
 Lys Gln Phe His Glu \*  
 210 213

<210> 1353  
 <211> 358  
 <212> PRT  
 <213> Homo sapiens

<400> 1353  
 Met Asn Ala Arg Ala Trp Lys Arg Trp Cys Thr Gln Ile Leu Ser Ala  
 1 5 10 15  
 Leu Ser Phe Leu His Ala Cys Thr Pro Ile Ile His Gly Asn Leu  
 20 25 30  
 Thr Ser Asp Thr Ile Phe Ile Gln His Asn Gly Leu Ile Lys Ile Gly  
 35 40 45  
 Ser Val Trp His Arg Ile Phe Ser Asn Ala Leu Pro Asp Asp Leu Arg  
 50 55 60  
 Ser Pro Ile Arg Ala Glu Arg Glu Glu Leu Arg Asn Leu His Phe Phe  
 65 70 75 80  
 Pro Pro Glu Tyr Gly Glu Val Ala Asp Gly Thr Ala Val Asp Ile Phe  
 85 90 95  
 Ser Phe Gly Met Cys Ala Leu Glu Met Ala Val Leu Glu Ile Gln Thr  
 100 105 110  
 Asn Gly Asp Thr Arg Val Thr Glu Glu Ala Ile Ala Arg Ala Arg His  
 115 120 125  
 Ser Leu Ser Asp Pro Asn Met Arg Glu Phe Ile Leu Cys Cys Leu Ala  
 130 135 140

Arg Asp Pro Ala Arg Arg Pro Ser Ala His Ser Leu Leu Phe His Arg  
 145 150 155 160  
 Val Leu Phe Glu Val His Ser Leu Lys Leu Leu Ala Ala His Cys Phe  
 165 170 175  
 Ile Gln His Gln Tyr Leu Met Pro Glu Asn Val Val Glu Glu Lys Thr  
 180 185 190  
 Lys Ala Met Asp Leu His Ala Val Leu Ala Glu Leu Pro Arg Pro Arg  
 195 200 205  
 Arg Pro Pro Leu Gln Trp Arg Tyr Ser Glu Val Ser Phe Met Glu Leu  
 210 215 220  
 Asp Lys Phe Leu Glu Asp Val Arg Asn Gly Ile Tyr Pro Leu Met Asn  
 225 230 235 240  
 Phe Ala Ala Thr Arg Pro Leu Gly Leu Pro Arg Val Leu Ala Pro Pro  
 245 250 255  
 Pro Glu Glu Val Gln Lys Ala Lys Thr Pro Thr Pro Glu Pro Phe Asp  
 260 265 270  
 Ser Glu Thr Arg Lys Val Ile Gln Met Gln Cys Asn Leu Glu Arg Ser  
 275 280 285  
 Glu Asp Lys Ala Arg Trp His Leu Thr Leu Leu Leu Val Leu Glu Asp  
 290 295 300  
 Arg Leu His Arg Gln Leu Thr Tyr Asp Leu Leu Pro Thr Asp Ser Ala  
 305 310 315 320  
 Gln Asp Leu Ala Ser Glu Leu Val His Tyr Gly Phe Leu His Glu His  
 325 330 335  
 Asp Arg Met Lys Leu Ala Ala Phe Leu Glu Ser Thr Phe Leu Lys Tyr  
 340 345 350  
 Arg Gly Thr Gln Ala \*  
 355 357

<210> 1354  
 <211> 535  
 <212> PRT  
 <213> Homo sapiens

<400> 1354  
 Met Phe Gln Phe His Ala Gly Ser Trp Glu Ser Trp Cys Cys Cys Cys  
 1 5 10 15  
 Leu Ile Pro Ala Asp Arg Pro Trp Asp Arg Gly Gln His Trp Gln Leu  
 20 25 30  
 Glu Met Ala Asp Thr Arg Ser Val His Glu Thr Arg Phe Glu Ala Ala  
 35 40 45  
 Val Lys Val Ile Gln Ser Leu Pro Lys Asn Gly Ser Phe Gln Pro Thr  
 50 55 60  
 Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala Thr Glu  
 65 70 75 80  
 Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe Trp Asp Pro Ile Gly Arg  
 85 90 95  
 Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly Asp Met Thr Lys Glu Glu  
 100 105 110  
 Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Ile Glu Thr Met  
 115 120 125  
 Pro Met Thr Glu Lys Val Glu Glu Leu Leu Arg Val Ile Gly Pro Phe  
 130 135 140  
 Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp Ile Pro  
 145 150 155 160  
 Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu Gly Asn  
 165 170 175  
 Val Leu Thr Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys Ala Glu  
 180 185 190  
 Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Glu Ala Gln Glu Glu  
 195 200 205

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Val Lys Gly Ala Asp Gln Ser Asp Asn Asp Lys Lys Met Met Lys Lys
210                215                220
Ser Ala Asp His Lys Asn Leu Glu Val Ile Val Thr Asn Gly Tyr Asp
225                230                235                240
Lys Asp Gly Phe Val Gln Asp Ile Gln Asn Asp Ile His Ala Ser Ser
245                250                255
Ser Leu Asn Gly Arg Ser Thr Glu Glu Val Lys Pro Ile Asp Glu Asn
260                265                270
Leu Gly Gln Thr Gly Lys Ser Ala Val Cys Ile His Gln Asp Ile Asn
275                280                285
Asp Asp His Val Glu Asp Val Thr Gly Ile Gln His Leu Thr Ser Asp
290                295                300
Ser Asp Ser Glu Val Tyr Cys Asp Ser Met Glu Gln Phe Gly Gln Glu
305                310                315                320
Glu Ser Leu Asp Ser Phe Thr Ser Asn Asn Gly Pro Phe Gln Tyr Tyr
325                330                335
Leu Gly Gly His Ser Ser Gln Pro Met Glu Asn Ser Gly Phe Arg Glu
340                345                350
Asp Ile Gln Val Pro Pro Gly Asn Gly Asn Ile Gly Asn Met Gln Val
355                360                365
Val Ala Val Glu Gly Lys Gly Glu Val Lys His Gly Gly Glu Asp Gly
370                375                380
Arg Asn Asn Ser Gly Ala Pro His Arg Glu Lys Arg Gly Gly Glu Thr
385                390                395                400
Asp Glu Phe Ser Asn Val Arg Arg Gly Arg Gly His Arg Met Gln His
405                410                415
Leu Ser Glu Gly Thr Lys Gly Arg Gln Val Gly Ser Gly Gly Asp Gly
420                425                430
Glu Arg Trp Gly Ser Asp Arg Gly Ser Arg Gly Ser Leu Asn Glu Gln
435                440                445
Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn Val Leu
450                455                460
Gln Arg Leu Gln Lys Leu Glu Thr Leu Thr Ala Leu Gln Ala Lys Ser
465                470                475                480
Ser Thr Ser Thr Leu Gln Thr Ala Pro Gln Pro Thr Ser Gln Arg Pro
485                490                495
Ser Trp Trp Pro Phe Glu Met Ser Pro Gly Val Leu Thr Phe Ala Ile
500                505                510
Ile Trp Pro Phe Ile Ala Gln Trp Leu Val Tyr Leu Tyr Tyr Gln Arg
515                520                525
Arg Arg Arg Lys Leu Asn *
530                534

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&lt;210&gt; 1355

&lt;211&gt; 497

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1355

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Met Asp Arg Met Lys Lys Ile Lys Arg Gln Leu Ser Met Thr Leu Arg
1          5          10          15
Gly Gly Arg Gly Ile Asp Lys Thr Asn Gly Ala Pro Glu Gln Ile Gly
20          25          30
Leu Asp Glu Ser Gly Gly Gly Gly Ser Asp Pro Gly Glu Ala Pro
35          40          45
Thr Arg Ala Ala Pro Gly Glu Leu Arg Ser Ala Arg Gly Pro Leu Ser
50          55          60
Ser Ala Pro Glu Ile Val His Glu Asp Leu Lys Met Gly Ser Asp Gly
65          70          75          80
Glu Ser Asp Gln Ala Ser Ala Thr Ser Ser Asp Glu Val Gln Ser Pro
85          90          95

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Val	Arg	Val	Arg	Met	Arg	Asn	His	Pro	Pro	Arg	Lys	Ile	Ser	Thr	Glu
			100					105					110		
Asp	Ile	Asn	Lys	Arg	Leu	Ser	Leu	Pro	Ala	Asp	Ile	Arg	Leu	Pro	Glu
		115					120					125			
Gly	Tyr	Leu	Glu	Lys	Leu	Thr	Leu	Asn	Ser	Pro	Ile	Phe	Asp	Lys	Pro
		130				135					140				
Leu	Ser	Arg	Arg	Leu	Arg	Arg	Val	Ser	Leu	Ser	Glu	Ile	Gly	Phe	Gly
		145			150					155					160
Lys	Leu	Glu	Thr	Tyr	Ile	Lys	Leu	Asp	Lys	Leu	Gly	Glu	Gly	Thr	Tyr
			165					170						175	
Ala	Thr	Val	Tyr	Lys	Gly	Lys	Ser	Lys	Leu	Thr	Asp	Asn	Leu	Val	Ala
		180						185					190		
Leu	Lys	Glu	Ile	Arg	Leu	Glu	His	Glu	Glu	Gly	Ala	Pro	Cys	Thr	Ala
		195					200					205			
Ile	Arg	Glu	Val	Ser	Leu	Leu	Lys	Asp	Leu	Lys	His	Ala	Asn	Ile	Val
		210				215					220				
Thr	Leu	His	Asp	Ile	Ile	His	Thr	Glu	Lys	Ser	Leu	Thr	Leu	Val	Phe
		225			230					235					240
Glu	Tyr	Leu	Asp	Lys	Asp	Leu	Lys	Gln	Tyr	Leu	Asp	Asp	Cys	Gly	Asn
			245					250						255	
Ile	Ile	Asn	Met	His	Asn	Val	Lys	Leu	Phe	Leu	Phe	Gln	Leu	Leu	Arg
		260						265					270		
Gly	Leu	Ala	Tyr	Cys	His	Arg	Gln	Lys	Val	Leu	His	Arg	Asp	Leu	Lys
		275					280					285			
Pro	Gln	Asn	Leu	Leu	Ile	Asn	Glu	Arg	Gly	Glu	Leu	Lys	Leu	Ala	Asp
		290				295				300					
Phe	Gly	Leu	Ala	Arg	Ala	Lys	Ser	Ile	Pro	Thr	Lys	Thr	Tyr	Ser	Asn
		305			310					315					320
Glu	Val	Val	Thr	Leu	Trp	Tyr	Arg	Pro	Pro	Asp	Ile	Leu	Leu	Gly	Ser
			325					330						335	
Thr	Asp	Tyr	Ser	Thr	Gln	Ile	Asp	Met	Trp	Gly	Val	Gly	Cys	Ile	Phe
		340					345						350		
Tyr	Glu	Met	Ala	Thr	Gly	Arg	Pro	Leu	Phe	Pro	Gly	Ser	Thr	Val	Glu
		355				360					365				
Glu	Gln	Leu	His	Phe	Ile	Phe	Arg	Ile	Leu	Gly	Thr	Pro	Thr	Glu	Glu
		370				375					380				
Thr	Trp	Pro	Gly	Ile	Leu	Ser	Asn	Glu	Glu	Phe	Lys	Thr	Tyr	Asn	Tyr
		385			390					395					400
Pro	Lys	Tyr	Arg	Ala	Glu	Ala	Leu	Leu	Ser	His	Ala	Pro	Arg	Leu	Asp
			405					410						415	
Ser	Asp	Gly	Ala	Asp	Leu	Leu	Thr	Lys	Leu	Leu	Gln	Phe	Glu	Gly	Arg
		420						425					430		
Asn	Arg	Ile	Ser	Ala	Glu	Asp	Ala	Met	Lys	His	Pro	Phe	Phe	Leu	Ser
		435					440					445			
Leu	Gly	Glu	Arg	Ile	His	Lys	Leu	Pro	Asp	Thr	Thr	Ser	Ile	Phe	Ala
		450				455					460				
Leu	Lys	Glu	Ile	Gln	Leu	Gln	Lys	Glu	Ala	Ser	Leu	Arg	Ser	Ser	Ser
		465			470					475					480
Met	Pro	Asp	Ser	Gly	Arg	Pro	Ala	Phe	Arg	Val	Val	Asp	Thr	Glu	Phe
				485					490					495	496

\*

&lt;210&gt; 1356

&lt;211&gt; 566

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1356

Met	Ser	Ala	Gly	Glu	Val	Glu	Arg	Leu	Val	Ser	Glu	Leu	Ser	Gly	Gly
1					5				10					15	



Thr Gly Gly Asp Glu Glu Glu Glu Trp Leu Tyr Gly Asp Glu Asn Glu  
 20 25 30  
 Val Glu Arg Pro Glu Glu Glu Asn Ala Ser Ala Asn Pro Pro Ser Gly  
 35 40 45  
 Ile Glu Asp Glu Thr Ala Glu Asn Gly Val Pro Lys Pro Lys Val Thr  
 50 55 60  
 Glu Thr Glu Asp Asp Ser Asp Ser Asp Ser Asp Asp Asp Glu Asp Asp  
 65 70 75 80  
 Val His Val Thr Ile Gly Asp Ile Lys Thr Gly Ala Pro Gln Tyr Gly  
 85 90 95  
 Ser Tyr Gly Thr Ala Pro Val Asn Leu Asn Ile Lys Thr Gly Gly Arg  
 100 105 110  
 Val Tyr Gly Thr Thr Gly Thr Lys Val Lys Gly Val Asp Leu Asp Ala  
 115 120 125  
 Pro Gly Ser Ile Asn Gly Val Pro Leu Leu Glu Val Asp Leu Asp Ser  
 130 135 140  
 Phe Glu Asp Lys Pro Trp Arg Lys Pro Gly Ala Asp Leu Ser Asp Tyr  
 145 150 155 160  
 Phe Asn Tyr Gly Phe Asn Glu Asp Thr Trp Lys Ala Tyr Cys Glu Lys  
 165 170 175  
 Gln Lys Arg Ile Arg Met Gly Leu Glu Val Ile Pro Val Thr Ser Thr  
 180 185 190  
 Thr Asn Lys Ile Thr Val Gln Gln Gly Arg Thr Gly Asn Ser Glu Lys  
 195 200 205  
 Glu Thr Ala Leu Pro Ser Thr Lys Ala Glu Phe Thr Ser Pro Pro Ser  
 210 215 220  
 Leu Phe Lys Thr Gly Leu Pro Pro Ser Arg Asn Ser Thr Ser Ser Gln  
 225 230 235 240  
 Ser Gln Thr Ser Thr Ala Ser Arg Lys Ala Asn Ser Ser Val Gly Lys  
 245 250 255  
 Trp Gln Asp Arg Tyr Gly Arg Ala Glu Ser Pro Asp Leu Arg Arg Leu  
 260 265 270  
 Pro Gly Ala Ile Asp Val Ile Gly Gln Thr Ile Thr Ile Ser Arg Val  
 275 280 285  
 Glu Gly Arg Arg Arg Ala Asn Glu Asn Ser Asn Ile Gln Val Leu Ser  
 290 295 300  
 Glu Arg Ser Ala Thr Glu Val Asp Asn Asn Phe Ser Lys Pro Pro Pro  
 305 310 315 320  
 Phe Phe Pro Pro Gly Ala Pro Pro Thr His Leu Pro Pro Pro Pro Phe  
 325 330 335  
 Leu Pro Pro Pro Pro Thr Val Ser Thr Ala Pro Pro Leu Ile Pro Pro  
 340 345 350  
 Pro Gly Ile Pro Ile Thr Val Pro Pro Gly Phe Pro Pro Pro Pro  
 355 360 365  
 Gly Ala Pro Pro Pro Ser Leu Ile Pro Thr Ile Glu Ser Gly His Ser  
 370 375 380  
 Ser Gly Tyr Asp Ser Arg Ser Ala Arg Ala Phe Pro Tyr Gly Asn Val  
 385 390 395 400  
 Ala Phe Pro His Leu Pro Gly Ser Ala Pro Ser Trp Pro Ser Leu Val  
 405 410 415  
 Asp Thr Ser Lys Gln Trp Asp Tyr Tyr Ala Arg Arg Glu Lys Asp Arg  
 420 425 430  
 Asp Arg Glu Arg Asp Arg Asp Arg Glu Arg Asp Arg Asp Arg Asp Arg  
 435 440 445  
 Glu Arg Glu Arg Thr Arg Glu Arg Glu Arg Glu Arg Asp His Ser Pro  
 450 455 460  
 Thr Pro Ser Val Phe Asn Ser Asp Glu Glu Arg Tyr Arg Tyr Arg Glu  
 465 470 475 480  
 Tyr Ala Glu Arg Gly Tyr Glu Arg His Arg Ala Ser Arg Glu Lys Glu  
 485 490 495  
 Glu Arg His Arg Glu Arg Arg His Arg Glu Lys Glu Glu Thr Arg His  
 500 505 510  
 Lys Ser Ser Arg Ser Asn Ser Arg Arg Arg His Glu Ser Glu Glu Gly  
 515 520 525

Asp Ser His Arg Arg His Lys His Lys Lys Ser Lys Arg Ser Lys Glu  
 530 535 540  
 Gly Lys Glu Ala Gly Ser Glu Pro Ala Pro Glu Gln Glu Ser Thr Glu  
 545 550 555 560  
 Ala Thr Pro Ala Glu \*  
 565

<210> 1357  
 <211> 2137  
 <212> PRT  
 <213> Homo sapiens

<400> 1357  
 Met Glu Gln Thr Asp Cys Lys Pro Tyr Gln Pro Leu Pro Lys Val Lys  
 1 5 10 15  
 His Glu Met Asp Leu Ala Tyr Thr Ser Ser Ser Asp Glu Ser Glu Asp  
 20 25 30  
 Gly Arg Lys Pro Arg Gln Ser Tyr Asn Ser Arg Glu Thr Leu His Glu  
 35 40 45  
 Tyr Asn Gln Glu Leu Arg Met Asn Tyr Asn Ser Gln Ser Arg Lys Arg  
 50 55 60  
 Lys Glu Val Glu Lys Ser Thr Gln Glu Met Glu Phe Cys Glu Thr Ser  
 65 70 75 80  
 His Thr Leu Cys Ser Gly Tyr Gln Thr Asp Met His Ser Val Ser Arg  
 85 90 95  
 His Gly Tyr Gln Leu Glu Met Gly Ser Asp Val Asp Thr Glu Thr Glu  
 100 105 110  
 Gly Ala Ala Ser Pro Asp His Ala Leu Arg Met Trp Ile Arg Gly Met  
 115 120 125  
 Lys Ser Glu His Ser Ser Cys Leu Ser Ser Arg Ala Asn Ser Ala Leu  
 130 135 140  
 Ser Leu Thr Asp Thr Asp His Glu Arg Lys Ser Asp Gly Glu Asn Gly  
 145 150 155 160  
 Phe Lys Phe Ser Pro Val Cys Cys Asp Met Glu Ala Gln Ala Gly Ser  
 165 170 175  
 Thr Gln Asp Val Gln Ser Ser Pro His Asn Gln Phe Thr Phe Arg Pro  
 180 185 190  
 Leu Pro Pro Pro Pro Pro Pro Pro His Ala Cys Thr Cys Ala Arg Lys  
 195 200 205  
 Pro Pro Pro Ala Ala Asp Ser Leu Gln Arg Arg Ser Met Thr Thr Arg  
 210 215 220  
 Ser Gln Pro Ser Pro Ala Ala Pro Ala Pro Thr Ser Thr Gln Asp  
 225 230 235 240  
 Ser Val His Leu His Asn Ser Trp Val Leu Asn Ser Asn Ile Pro Leu  
 245 250 255  
 Glu Thr Arg His Phe Leu Phe Lys His Gly Ser Gly Ser Ser Ala Ile  
 260 265 270  
 Phe Ser Ala Ala Ser Gln Asn Tyr Pro Leu Thr Ser Asn Thr Val Tyr  
 275 280 285  
 Ser Pro Pro Pro Arg Pro Leu Pro Arg Ser Thr Phe Ser Arg Pro Ala  
 290 295 300  
 Phe Thr Phe Asn Lys Pro Tyr Arg Cys Cys Asn Trp Lys Cys Thr Ala  
 305 310 315 320  
 Leu Ser Ala Thr Ala Ile Thr Val Thr Leu Ala Leu Leu Ala Tyr  
 325 330 335  
 Val Ile Ala Val His Leu Phe Gly Leu Thr Trp Gln Leu Gln Pro Val  
 340 345 350  
 Glu Gly Glu Leu Tyr Ala Asn Gly Val Ser Lys Gly Asn Arg Gly Thr  
 355 360 365  
 Glu Ser Met Asp Thr Thr Tyr Ser Pro Ile Gly Gly Lys Val Ser Asp  
 370 375 380

Lys Ser Glu Lys Lys Val Phe Gln Lys Gly Arg Ala Ile Asp Thr Gly  
 385 390 395 400  
 Glu Val Asp Ile Gly Ala Gln Val Met Gln Thr Ile Pro Pro Gly Leu  
 405 410 415  
 Phe Trp Arg Phe Gln Ile Thr Ile His His Pro Ile Tyr Leu Lys Phe  
 420 425 430  
 Asn Ile Ser Leu Ala Lys Asp Ser Leu Leu Gly Ile Tyr Gly Arg Arg  
 435 440 445  
 Asn Ile Pro Pro Thr His Thr Gln Phe Asp Phe Val Lys Leu Met Asp  
 450 455 460  
 Gly Lys Gln Leu Val Lys Gln Asp Ser Lys Gly Ser Asp Asp Thr Gln  
 465 470 475 480  
 His Ser Pro Arg Asn Leu Ile Leu Thr Ser Leu Gln Glu Thr Gly Phe  
 485 490 495  
 Ile Glu Tyr Met Asp Gln Gly Pro Trp Tyr Leu Ala Phe Tyr Asn Asp  
 500 505 510  
 Gly Lys Lys Met Glu Gln Val Phe Val Leu Thr Thr Ala Ile Glu Ile  
 515 520 525  
 Met Asp Asp Cys Ser Thr Asn Cys Asn Gly Asn Gly Glu Cys Ile Ser  
 530 535 540  
 Gly His Cys His Cys Phe Pro Gly Phe Leu Gly Pro Asp Cys Ala Arg  
 545 550 555 560  
 Asp Ser Cys Pro Val Leu Cys Gly Gly Asn Gly Glu Tyr Glu Lys Gly  
 565 570 575  
 His Cys Val Cys Arg His Gly Trp Lys Gly Pro Glu Cys Asp Val Pro  
 580 585 590  
 Glu Glu Gln Cys Ile Asp Pro Thr Cys Phe Gly His Gly Thr Cys Ile  
 595 600 605  
 Met Gly Val Cys Ile Cys Val Pro Gly Tyr Lys Gly Glu Ile Cys Glu  
 610 615 620  
 Glu Glu Asp Cys Leu Asp Pro Met Cys Ser Asn His Gly Ile Cys Val  
 625 630 635 640  
 Lys Gly Glu Cys His Cys Ser Thr Gly Trp Gly Gly Val Asn Cys Glu  
 645 650 655  
 Thr Pro Leu Pro Val Cys Gln Glu Gln Cys Ser Gly His Gly Thr Phe  
 660 665 670  
 Leu Leu Asp Ala Gly Val Cys Ser Cys Asp Pro Lys Trp Thr Gly Ser  
 675 680 685  
 Asp Cys Ser Thr Glu Leu Cys Thr Met Glu Cys Gly Ser His Gly Val  
 690 695 700  
 Cys Ser Arg Gly Ile Cys Gln Cys Glu Glu Gly Trp Val Gly Pro Thr  
 705 710 715 720  
 Cys Glu Glu Arg Ser Cys His Ser His Cys Thr Glu His Gly Gln Cys  
 725 730 735  
 Lys Asp Gly Lys Cys Glu Cys Ser Pro Gly Trp Glu Gly Asp His Cys  
 740 745 750  
 Thr Ile Ala His Tyr Leu Asp Ala Val Arg Asp Gly Cys Pro Gly Leu  
 755 760 765  
 Cys Phe Gly Asn Gly Arg Cys Thr Leu Asp Gln Asn Gly Trp His Cys  
 770 775 780  
 Val Cys Gln Val Gly Trp Ser Gly Thr Gly Cys Asn Val Val Met Glu  
 785 790 795 800  
 Met Leu Cys Gly Asp Asn Leu Asp Asn Asp Gly Asp Gly Leu Thr Asp  
 805 810 815  
 Cys Val Asp Pro Asp Cys Cys Gln Gln Ser Asn Cys Tyr Ile Ser Pro  
 820 825 830  
 Leu Cys Gln Gly Ser Pro Asp Pro Leu Asp Leu Ile Gln Gln Ser Gln  
 835 840 845  
 Thr Leu Phe Ser Gln His Thr Ser Arg Leu Phe Tyr Asp Arg Ile Lys  
 850 855 860  
 Phe Leu Ile Gly Lys Asp Ser Thr His Val Ile Pro Pro Glu Val Ser  
 865 870 875 880  
 Phe Asp Ser Arg Arg Ala Cys Val Ile Arg Gly Gln Val Val Ala Ile  
 885 890 895

Asp Gly Thr Pro Leu Val Gly Val Asn Val Ser Phe Leu His His Ser  
 900 905 910  
 Asp Tyr Gly Phe Thr Ile Ser Arg Gln Asp Gly Ser Phe Asp Leu Val  
 915 920 925  
 Ala Ile Gly Gly Ile Ser Val Ile Leu Ile Phe Asp Arg Ser Pro Phe  
 930 935 940  
 Leu Pro Glu Lys Arg Thr Leu Trp Leu Pro Trp Asn Gln Phe Ile Val  
 945 950 955 960  
 Val Glu Lys Val Thr Met Gln Arg Val Val Ser Asp Pro Pro Ser Cys  
 965 970 975  
 Asp Ile Ser Asn Phe Ile Ser Pro Asn Pro Ile Val Leu Pro Ser Pro  
 980 985 990  
 Leu Thr Ser Phe Gly Gly Ser Cys Pro Glu Arg Gly Thr Ile Val Pro  
 995 1000 1005  
 Glu Leu Gln Val Val Gln Glu Glu Ile Pro Ile Pro Ser Ser Phe Val  
 1010 1015 1020  
 Arg Leu Ser Tyr Leu Ser Ser Arg Thr Pro Gly Tyr Lys Thr Leu Leu  
 1025 1030 1035 1040  
 Arg Ile Leu Leu Thr His Ser Thr Ile Pro Val Gly Met Ile Lys Val  
 1045 1050 1055  
 His Leu Thr Val Ala Val Glu Gly Arg Leu Thr Gln Lys Trp Phe Pro  
 1060 1065 1070  
 Ala Ala Ile Asn Leu Val Tyr Thr Phe Ala Trp Asn Lys Thr Asp Ile  
 1075 1080 1085  
 Tyr Gly Gln Lys Val Trp Gly Leu Ala Glu Ala Leu Val Ser Val Gly  
 1090 1095 1100  
 Tyr Glu Tyr Glu Thr Cys Pro Asp Phe Ile Leu Trp Glu Gln Arg Thr  
 1105 1110 1115 1120  
 Val Val Leu Gln Gly Phe Glu Met Asp Ala Ser Asn Leu Gly Asp Trp  
 1125 1130 1135  
 Ser Leu Asn Lys His His Ile Leu Asn Pro Gln Ser Gly Ile Ile His  
 1140 1145 1150  
 Lys Gly Asn Gly Glu Asn Met Phe Ile Ser Gln Gln Pro Pro Val Ile  
 1155 1160 1165  
 Ser Thr Ile Met Gly Asn Gly His Gln Arg Ser Val Ala Cys Thr Asn  
 1170 1175 1180  
 Cys Asn Gly Pro Ala His Asn Asn Lys Leu Phe Ala Pro Val Ala Leu  
 1185 1190 1195 1200  
 Ala Ser Gly Pro Asp Gly Ser Val Tyr Val Gly Asp Phe Asn Phe Val  
 1205 1210 1215  
 Arg Arg Ile Phe Pro Ser Gly Asn Ser Val Ser Ile Leu Glu Leu Ser  
 1220 1225 1230  
 Thr Ser Pro Ala His Lys Tyr Tyr Leu Ala Met Asp Pro Val Ser Glu  
 1235 1240 1245  
 Ser Leu Tyr Leu Ser Asp Thr Asn Thr Arg Lys Val Tyr Lys Leu Lys  
 1250 1255 1260  
 Ser Leu Val Glu Thr Lys Asp Leu Ser Lys Asn Phe Glu Val Val Ala  
 1265 1270 1275 1280  
 Gly Thr Gly Asp Gln Cys Leu Pro Phe Asp Gln Ser His Cys Gly Asp  
 1285 1290 1295  
 Gly Gly Arg Ala Ser Glu Ala Ser Leu Asn Ser Pro Arg Gly Ile Thr  
 1300 1305 1310  
 Val Asp Arg His Gly Phe Ile Tyr Phe Val Asp Gly Thr Met Ile Arg  
 1315 1320 1325  
 Lys Ile Asp Glu Asn Ala Val Ile Thr Thr Val Ile Gly Ser Asn Gly  
 1330 1335 1340  
 Leu Thr Ser Thr Gln Pro Leu Ser Cys Asp Ser Gly Met Asp Ile Thr  
 1345 1350 1355 1360  
 Gln Val Arg Leu Glu Trp Pro Thr Asp Leu Ala Val Asn Pro Met Asp  
 1365 1370 1375  
 Asn Ser Leu Tyr Val Leu Asp Asn Asn Ile Val Leu Gln Ile Ser Glu  
 1380 1385 1390  
 Asn Arg Arg Val Arg Ile Ile Ala Gly Arg Pro Ile His Cys Gln Val  
 1395 1400 1405

Pro Gly Ile Asp His Phe Leu Val Ser Lys Val Ala Ile His Ser Thr  
 1410 1415 1420  
 Leu Glu Ser Ala Arg Ala Ile Ser Val Ser His Ser Gly Leu Leu Phe  
 1425 1430 1435 1440  
 Ile Ala Glu Thr Asp Glu Arg Lys Val Asn Arg Ile Gln Gln Val Thr  
 1445 1450 1455  
 Thr Asn Gly Glu Ile Tyr Ile Ile Ala Gly Ala Pro Thr Asp Cys Asp  
 1460 1465 1470  
 Cys Lys Ile Asp Pro Asn Cys Asp Cys Phe Ser Gly Asp Gly Gly Tyr  
 1475 1480 1485  
 Ala Lys Asp Ala Lys Met Lys Ala Pro Ser Ser Leu Ala Val Ser Pro  
 1490 1495 1500  
 Asp Gly Thr Leu Tyr Val Ala Asp Leu Gly Asn Val Arg Ile Arg Thr  
 1505 1510 1515 1520  
 Ile Ser Arg Asn Gln Ala His Leu Asn Asp Met Asn Ile Tyr Glu Ile  
 1525 1530 1535  
 Ala Ser Pro Ala Asp Gln Glu Leu Tyr Gln Phe Thr Val Asn Gly Thr  
 1540 1545 1550  
 His Leu His Thr Leu Asn Leu Ile Thr Arg Asp Tyr Val Tyr Asn Phe  
 1555 1560 1565  
 Thr Tyr Asn Ser Glu Gly Asp Leu Gly Ala Ile Thr Ser Ser Asn Gly  
 1570 1575 1580  
 Asn Ser Val His Ile Arg Arg Asp Ala Gly Gly Met Pro Leu Trp Leu  
 1585 1590 1595 1600  
 Val Val Pro Gly Gly Gln Val Tyr Trp Leu Thr Ile Ser Ser Asn Gly  
 1605 1610 1615  
 Val Leu Lys Arg Val Ser Ala Gln Gly Tyr Asn Pro Ala Leu Met Thr  
 1620 1625 1630  
 Tyr Pro Gly Asn Thr Gly Leu Leu Ala Thr Lys Ser Asn Glu Asn Gly  
 1635 1640 1645  
 Trp Thr Thr Val Tyr Glu Tyr Asp Pro Glu Gly His Leu Thr Asn Ala  
 1650 1655 1660  
 Thr Phe Pro Thr Gly Glu Val Ser Ser Phe His Ser Asp Leu Glu Lys  
 1665 1670 1675 1680  
 Leu Thr Lys Val Glu Leu Asp Thr Ser Asn Arg Glu Asn Val Leu Met  
 1685 1690 1695  
 Ser Thr Asn Leu Thr Ala Thr Ser Thr Ile Tyr Ile Leu Lys Gln Glu  
 1700 1705 1710  
 Asn Thr Gln Ser Thr Tyr Arg Val Asn Pro Asp Gly Ser Leu Arg Val  
 1715 1720 1725  
 Thr Phe Ala Ser Gly Met Glu Ile Gly Leu Ser Ser Glu Pro His Ile  
 1730 1735 1740  
 Leu Ala Gly Ala Val Asn Pro Thr Leu Gly Lys Cys Asn Ile Ser Leu  
 1745 1750 1755 1760  
 Pro Gly Glu His Asn Ala Asn Leu Ile Glu Trp Arg Gln Arg Lys Glu  
 1765 1770 1775  
 Gln Asn Lys Gly Asn Val Ser Ala Phe Glu Arg Arg Leu Arg Ala His  
 1780 1785 1790  
 Asn Arg Asn Leu Leu Ser Ile Asp Phe Asp His Ile Thr Arg Thr Gly  
 1795 1800 1805  
 Lys Ile Tyr Asp Asp His Arg Lys Phe Thr Leu Arg Ile Leu Tyr Asp  
 1810 1815 1820  
 Gln Thr Gly Arg Pro Ile Leu Trp Ser Pro Val Ser Arg Tyr Asn Glu  
 1825 1830 1835 1840  
 Val Asn Ile Thr Tyr Ser Pro Ser Gly Leu Val Thr Phe Ile Gln Arg  
 1845 1850 1855  
 Gly Thr Trp Asn Glu Lys Met Glu Tyr Asp Gln Ser Gly Lys Ile Ile  
 1860 1865 1870  
 Ser Arg Thr Trp Ala Asp Gly Lys Ile Trp Ser Tyr Thr Tyr Leu Glu  
 1875 1880 1885  
 Lys Ser Val Met Leu Leu Leu His Ser Gln Arg Arg Tyr Ile Phe Glu  
 1890 1895 1900  
 Tyr Asp Gln Ser Asp Cys Leu Leu Ser Val Thr Met Pro Ser Met Val  
 1905 1910 1915 1920

Arg His Ser Leu Gln Thr Met Leu Ser Val Gly Tyr Tyr Arg Asn Ile  
                   1925                                  1930                  1935  
 Tyr Thr Pro Pro Asp Ser Ser Thr Ser Phe Ile Gln Asp Tyr Ser Arg  
                   1940                                  1945                  1950  
 Asp Gly Arg Leu Leu Gln Thr Leu His Leu Gly Thr Gly Arg Arg Val  
                   1955                                  1960                  1965  
 Leu Tyr Lys Tyr Thr Lys Gln Ala Arg Leu Ser Glu Val Leu Tyr Asp  
                   1970                                  1975                  1980  
 Thr Thr Gln Val Thr Leu Thr Tyr Glu Glu Ser Ser Gly Val Ile Lys  
 1985                                  1990                                  1995                  2000  
 Thr Ile His Leu Met His Asp Gly Phe Ile Cys Thr Ile Arg Tyr Arg  
                                   2005                                  2010                  2015  
 Gln Thr Gly Pro Leu Ile Gly Arg Gln Ile Phe Arg Phe Ser Glu Glu  
                                   2020                                  2025                  2030  
 Gly Leu Val Asn Ala Arg Phe Asp Tyr Ser Tyr Asn Asn Phe Arg Val  
                                   2035                                  2040                  2045  
 Thr Ser Met Gln Ala Val Ile Asn Glu Thr Pro Leu Pro Ile Asp Leu  
                                   2050                                  2055                  2060  
 Tyr Arg Tyr Val Asp Val Ser Gly Arg Thr Glu Gln Phe Gly Lys Phe  
 2065                                  2070                                  2075                  2080  
 Ser Val Ile Asn Tyr Asp Leu Asn Gln Val Ile Thr Thr Thr Val Met  
                                   2085                                  2090                  2095  
 Lys His Thr Lys Ile Phe Ser Ala Asn Gly Gln Val Ile Glu Val Gln  
                                   2100                                  2105                  2110  
 Tyr Glu Ile Leu Lys Ala Ile Ala Tyr Trp Met Thr Ile Gln Tyr Asp  
                                   2115                                  2120                  2125  
 Asn Val Gly Arg His Gly Asn Met \*  
                   2130                                  21352136

<210> 1358  
 <211> 69  
 <212> PRT  
 <213> Homo sapiens

<400> 1358  
 Met Gln Ser Arg Asp Thr Val Asn Val Lys Phe Thr Pro Arg Ser Phe  
   1                                  5                                  10                  15  
 Trp Gly Ser Arg Pro Lys His Thr Gly Gly Arg Ser Glu Met Arg Ala  
                                   20                                  25                  30  
 His Val Pro Gln Ala Pro Trp Ala Arg Gln Ala Pro Pro Val Leu Pro  
                                   35                                  40                  45  
 Leu Trp Thr Val Val Asn Asp His Pro His Glu Lys Pro Val Ser Arg  
                                   50                                  55                  60  
 Pro Gln Asn Thr \*  
   65                                  68

<210> 1359  
 <211> 502  
 <212> PRT  
 <213> Homo sapiens

<400> 1359  
 Met Asn Lys Ser Leu Gly Pro Val Ser Phe Lys Asp Val Ala Val Asp  
   1                                  5                                  10                  15  
 Phe Thr Gln Glu Glu Trp Gln Gln Leu Asp Pro Glu Gln Lys Ile Thr  
                                   20                                  25                  30  
 Tyr Arg Asp Val Met Leu Glu Asn Tyr Ser Asn Leu Val Ser Val Gly  
                                   35                                  40                  45

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Tyr His Ile Ile Lys Pro Asp Val Ile Ser Lys Leu Glu Gln Gly Glu
  50          55          60
Glu Pro Trp Ile Val Glu Gly Glu Phe Leu Leu Gln Ser Tyr Pro Asp
  65          70          75          80
Glu Val Trp Gln Thr Asp Asp Leu Ile Glu Arg Ile Gln Glu Glu Glu
          85          90          95
Asn Lys Pro Ser Arg Gln Thr Val Phe Ile Glu Thr Leu Ile Glu Glu
          100          105          110
Arg Gly Asn Val Pro Gly Lys Thr Phe Asp Val Glu Thr Asn Pro Val
          115          120          125
Pro Ser Arg Lys Ile Ala Tyr Lys Asn Ser Leu Cys Asp Ser Cys Glu
          130          135          140
Lys Cys Leu Thr Ser Val Ser Glu Tyr Ile Ser Ser Asp Gly Ser Tyr
          145          150          155          160
Ala Arg Met Lys Ala Asp Glu Cys Ser Gly Cys Gly Lys Ser Leu Leu
          165          170          175
His Ile Lys Leu Glu Lys Thr His Pro Gly Asp Gln Ala Tyr Glu Phe
          180          185          190
Asn Gln Asn Gly Glu Pro Tyr Thr Leu Asn Glu Glu Ser Leu Tyr Gln
          195          200          205
Lys Ile Arg Ile Leu Glu Lys Pro Phe Glu Tyr Ile Glu Cys Gln Lys
          210          215          220
Ala Phe Gln Lys Asp Thr Val Phe Val Asn His Met Glu Glu Lys Pro
          225          230          235          240
Tyr Lys Trp Asn Gly Ser Glu Ile Ala Phe Leu Gln Met Ser Asp Leu
          245          250          255
Thr Val His Gln Thr Ser His Met Glu Met Lys Pro Tyr Glu Cys Ser
          260          265          270
Glu Cys Gly Lys Ser Phe Cys Lys Lys Ser Lys Phe Ile Ile His Gln
          275          280          285
Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Asn Gln Cys Gly Lys
          290          295          300
Ser Phe Cys Gln Lys Gly Thr Leu Thr Val His Gln Arg Thr His Thr
          305          310          315          320
Gly Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly Lys Asn Phe Tyr Gln
          325          330          335
Lys Leu His Leu Ile Gln His Gln Arg Thr His Ser Gly Glu Lys Pro
          340          345          350
Tyr Glu Cys Ser Tyr Cys Gly Lys Ser Phe Cys Gln Lys Thr His Leu
          355          360          365
Thr Gln His Gln Arg Thr His Ser Gly Glu Arg Pro Tyr Val Cys His
          370          375          380
Asp Cys Gly Lys Thr Phe Ser Gln Lys Ser Ala Leu Asn Asp His Gln
          385          390          395          400
Lys Ile His Thr Gly Val Lys Leu Tyr Lys Cys Ser Glu Cys Gly Lys
          405          410          415
Cys Phe Cys Arg Lys Ser Thr Leu Thr Thr His Leu Arg Thr His Thr
          420          425          430
Gly Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly Lys Ala Phe Ser Arg
          435          440          445
Met Ser Tyr Leu Thr Val His Tyr Arg Thr His Ser Gly Glu Lys Pro
          450          455          460
Tyr Glu Cys Thr Glu Cys Gly Lys Lys Phe Tyr His Lys Ser Ala Phe
          465          470          475          480
Asn Ser His Gln Arg Ile His Arg Arg Gly Asn Met Asn Val Ile Asp
          485          490          495
Val Gly Arg Leu Leu *
          500 501

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&lt;210&gt; 1360

&lt;211&gt; 289

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1360

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Met Lys Leu Pro Ile Phe Ile Ala Asp Ala Phe Thr Ala Arg Ala Phe
 1           5           10           15
Arg Gly Asn Pro Ala Ala Val Cys Leu Leu Glu Asn Glu Leu Asp Glu
          20           25           30
Asp Met His Gln Lys Ile Ala Arg Glu Met Asn Leu Ser Glu Thr Ala
          35           40           45
Phe Ile Arg Lys Leu His Pro Thr Asp Asn Phe Ala Gln Ser Ser Cys
          50           55           60
Phe Gly Leu Arg Trp Phe Thr Pro Ala Ser Glu Val Pro Leu Cys Gly
          65           70           75           80
His Ala Thr Leu Ala Ser Ala Ala Val Leu Phe His Lys Ile Lys Asn
          85           90           95
Met Asn Ser Thr Leu Thr Phe Val Thr Leu Ser Gly Glu Leu Arg Ala
          100          105          110
Arg Arg Ala Glu Asp Gly Ile Val Leu Asp Leu Pro Leu Tyr Pro Ala
          115          120          125
His Pro Gln Asp Phe His Glu Val Glu Asp Leu Ile Lys Thr Ala Ile
          130          135          140
Gly Asn Thr Leu Val Gln Asp Ile Cys Tyr Ser Pro Asp Thr Gln Lys
          145          150          155          160
Leu Leu Val Arg Leu Ser Asp Val Tyr Asn Arg Ser Phe Leu Glu Asn
          165          170          175
Leu Lys Val Asn Thr Glu Asn Leu Leu Gln Val Glu Asn Thr Gly Lys
          180          185          190
Val Lys Gly Leu Ile Leu Thr Leu Lys Gly Glu Pro Gly Gly Gln Thr
          195          200          205
Gln Ala Phe Asp Phe Tyr Ser Arg Tyr Phe Ala Pro Trp Val Gly Val
          210          215          220
Ala Glu Asp Pro Val Thr Gly Ser Ala His Ala Val Leu Ser Ser Tyr
          225          230          235          240
Trp Ser Gln His Leu Gly Lys Lys Glu Met His Ala Phe Gln Cys Ser
          245          250          255
His Arg Gly Gly Glu Leu Gly Ile Ser Leu Arg Pro Asp Gly Arg Val
          260          265          270
Asp Ile Arg Gly Gly Ala Ala Val Val Leu Glu Gly Thr Leu Thr Ala
          275          280          285          288

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&lt;210&gt; 1361

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1361

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Met Asn Met Phe Lys Glu Ala Val Thr Phe Lys Asp Val Ala Val Thr
 1           5           10           15
Phe Thr Glu Glu Glu Leu Gly Leu Leu Gly Pro Ala Gln Arg Lys Leu
          20           25           30
Tyr Arg Asp Val Met Val Glu Asn Phe Arg Asn Leu Leu Ser Val Gly
          35           40           45
His Pro Pro Phe Lys Gln Asp Val Ser Pro Ile Glu Arg Asn Glu Gln
          50           55           60
Leu Trp Ile Met Thr Thr Ala Thr Arg Arg Gln Gly Asn Leu Asp Thr
          65           70           75           80
Leu Leu Val Lys Ala Leu Leu Leu Tyr Asp Leu Ala Gln Thr *
          85           90           94

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<210> 1362  
 <211> 185  
 <212> PRT  
 <213> Homo sapiens

<400> 1362  
 Met Gln Phe Thr Ser Ile Ser Asn Ser Leu Thr Ser Thr Ala Ala Ile  
   1                  5                  10                  15  
 Gly Leu Ser Phe Thr Thr Ser Thr Thr Thr Thr Ala Thr Phe Thr Thr  
                   20                  25                  30  
 Asn Thr Thr Thr Thr Ile Thr Ser Gly Phe Thr Val Asn Gln Asn Gln  
           35                  40                  45  
 Leu Leu Ser Arg Gly Phe Glu Asn Leu Val Pro Tyr Thr Ser Thr Val  
           50                  55                  60  
 Ser Val Val Ala Thr Pro Val Met Thr Tyr Gly His Leu Glu Gly Leu  
           65                  70                  75                  80  
 Ile Asn Glu Trp Asn Leu Glu Leu Glu Asp Gln Glu Lys Tyr Phe Leu  
                   85                  90                  95  
 Leu Gln Ala Thr Gln Val Asn Ala Trp Asp His Thr Leu Ile Glu Asn  
                   100                  105                  110  
 Gly Glu Met Ile Arg Ile Leu His Gly Glu Val Asn Lys Val Lys Leu  
           115                  120                  125  
 Asp Gln Lys Arg Leu Glu Gln Glu Leu Asp Phe Ile Leu Ser Gln Gln  
           130                  135                  140  
 Gln Glu Leu Glu Phe Leu Leu Thr Tyr Leu Glu Glu Ser Thr Arg Asp  
   145                  150                  155                  160  
 Gln Ser Gly Leu His Tyr Leu Gln Asp Ala Asp Glu Glu His Val Glu  
                   165                  170                  175  
 Ile Ser Thr Arg Ser Ala Glu Phe \*  
                   180                  184

<210> 1363  
 <211> 351  
 <212> PRT  
 <213> Homo sapiens

<400> 1363  
 Met Glu Tyr Tyr Leu Val Lys Trp Lys Gly Trp Pro Asp Ser Thr Asn  
   1                  5                  10                  15  
 Thr Trp Glu Pro Leu Gln Asn Leu Lys Cys Pro Leu Leu Leu Gln Gln  
                   20                  25                  30  
 Phe Ser Asn Asp Lys His Asn Tyr Leu Ser Gln Val Lys Lys Gly Lys  
           35                  40                  45  
 Ala Ile Thr Pro Lys Asp Asn Asn Lys Thr Leu Lys Pro Ala Ile Ala  
           50                  55                  60  
 Glu Tyr Ile Val Lys Lys Ala Lys Gln Arg Ile Ala Leu Gln Arg Trp  
           65                  70                  75                  80  
 Gln Asp Glu Leu Asn Arg Arg Lys Asn His Lys Gly Met Ile Phe Val  
                   85                  90                  95  
 Glu Asn Thr Val Asp Leu Glu Gly Pro Pro Ser Asp Phe Tyr Tyr Ile  
                   100                  105                  110  
 Asn Glu Tyr Lys Pro Ala Pro Gly Ile Ser Leu Val Asn Glu Ala Thr  
           115                  120                  125  
 Phe Gly Cys Ser Cys Thr Asp Cys Phe Phe Gln Lys Cys Cys Pro Ala  
           130                  135                  140  
 Glu Ala Gly Val Leu Leu Ala Tyr Asn Lys Asn Gln Gln Ile Lys Ile  
   145                  150                  155                  160

Pro Pro Gly Thr Pro Ile Tyr Glu Cys Asn Ser Arg Cys Gln Cys Gly  
 165 170 175  
 Pro Asp Cys Pro Asn Arg Ile Val Gln Lys Gly Thr Gln Tyr Ser Leu  
 180 185 190  
 Cys Ile Phe Arg Thr Ser Asn Gly Arg Gly Trp Gly Val Lys Thr Leu  
 195 200 205  
 Val Lys Ile Lys Arg Met Ser Phe Val Met Glu Tyr Val Gly Glu Val  
 210 215 220  
 Ile Thr Ser Glu Glu Ala Glu Arg Arg Gly Gln Phe Tyr Asp Asn Lys  
 225 230 235 240  
 Gly Ile Thr Tyr Leu Phe Asp Leu Asp Tyr Glu Ser Asp Glu Phe Thr  
 245 250 255  
 Val Asp Ala Ala Arg Tyr Gly Asn Val Ser His Phe Val Asn His Ser  
 260 265 270  
 Cys Asp Pro Asn Leu Gln Val Phe Asn Val Phe Ile Asp Asn Leu Asp  
 275 280 285  
 Thr Arg Leu Pro Arg Ile Ala Leu Phe Ser Thr Arg Thr Ile Asn Ala  
 290 295 300  
 Gly Glu Glu Leu Thr Phe Asp Tyr Gln Met Lys Gly Ser Gly Asp Ile  
 305 310 315 320  
 Ser Ser Asp Ser Ile Asp His Ser Pro Ala Lys Lys Arg Val Arg Thr  
 325 330 335  
 Val Cys Lys Cys Gly Ala Val Thr Cys Arg Gly Tyr Leu Asn \*  
 340 345 350

<210> 1364  
 <211> 1517  
 <212> PRT  
 <213> Homo sapiens

<400> 1364  
 Met Ala Pro Ala Lys Ala Thr Asn Val Val Arg Leu Leu Leu Gly Ser  
 1 5 10 15  
 Thr Ala Leu Trp Leu Ser Gln Leu Gly Ser Gly Thr Val Ala Ala Ser  
 20 25 30  
 Lys Ser Val Thr Ala His Leu Ala Ala Lys Trp Pro Glu Thr Pro Leu  
 35 40 45  
 Leu Leu Glu Ala Ser Glu Phe Met Ala Glu Glu Ser Asn Glu Lys Phe  
 50 55 60  
 Trp Gln Phe Leu Glu Thr Val Gln Glu Leu Ala Ile Tyr Lys Gln Thr  
 65 70 75 80  
 Glu Ser Asp Tyr Ser Tyr Tyr Asn Leu Ile Leu Lys Lys Ala Gly Gln  
 85 90 95  
 Phe Leu Asp Asn Leu His Ile Asn Leu Leu Lys Phe Ala Phe Ser Ile  
 100 105 110  
 Arg Ala Tyr Ser Pro Ala Ile Gln Met Phe Gln Gln Ile Ala Ala Asp  
 115 120 125  
 Glu Pro Pro Pro Asp Gly Cys Asn Ala Phe Val Val Ile His Lys Lys  
 130 135 140  
 His Thr Cys Lys Ile Asn Glu Ile Lys Lys Leu Leu Lys Lys Ala Ala  
 145 150 155 160  
 Ser Arg Thr Arg Pro Tyr Leu Phe Lys Gly Asp His Lys Phe Pro Thr  
 165 170 175  
 Asn Lys Glu Asn Leu Pro Val Val Ile Leu Tyr Ala Glu Met Gly Thr  
 180 185 190  
 Arg Thr Phe Ser Ala Phe His Lys Val Leu Ser Glu Lys Ala Gln Asn  
 195 200 205  
 Glu Glu Ile Leu Tyr Val Leu Arg His Tyr Ile Gln Lys Pro Ser Ser  
 210 215 220  
 Arg Lys Met Tyr Leu Ser Gly Tyr Gly Val Glu Leu Ala Ile Lys Ser  
 225 230 235 240

Thr Glu Tyr Lys Ala Leu Asp Asp Thr Gln Val Lys Thr Val Thr Asn  
 245 250 255  
 Thr Thr Val Glu Asp Glu Thr Glu Thr Asn Glu Val Gln Gly Phe Leu  
 260 265 270  
 Phe Gly Lys Leu Lys Glu Ile Tyr Ser Asp Leu Arg Asp Asn Leu Thr  
 275 280 285  
 Ala Phe Gln Lys Tyr Leu Ile Glu Ser Asn Lys Gln Met Met Pro Leu  
 290 295 300  
 Lys Val Trp Glu Leu Gln Asp Leu Ser Phe Gln Ala Ala Ser Gln Ile  
 305 310 315 320  
 Met Ser Ala Pro Val Tyr Asp Ala Ile Lys Leu Met Lys Asp Ile Ser  
 325 330 335  
 Gln Asn Phe Pro Ile Lys Ala Arg Ser Leu Thr Arg Ile Ala Val Asn  
 340 345 350  
 Gln His Met Arg Glu Glu Ile Lys Glu Asn Gln Lys Asp Leu Gln Val  
 355 360 365  
 Arg Phe Lys Ile Gln Pro Gly Asp Ala Arg Leu Phe Ile Asn Gly Leu  
 370 375 380  
 Arg Val Asp Met Asp Val Tyr Asp Ala Phe Ser Ile Leu Asp Met Leu  
 385 390 395 400  
 Lys Leu Glu Gly Lys Met Met Asn Gly Leu Arg Asn Leu Gly Ile Asn  
 405 410 415  
 Gly Glu Asp Met Ser Lys Phe Leu Lys Leu Asn Ser His Ile Trp Glu  
 420 425 430  
 Tyr Thr Tyr Val Leu Asp Ile Arg His Ser Ser Ile Met Trp Ile Asn  
 435 440 445  
 Asp Leu Glu Asn Asp Asp Leu Tyr Ile Thr Trp Pro Thr Ser Cys Gln  
 450 455 460  
 Lys Leu Leu Lys Pro Val Phe Pro Gly Ser Val Pro Ser Ile Arg Arg  
 465 470 475 480  
 Asn Phe His Asn Leu Val Leu Phe Ile Asp Pro Ala Gln Glu Tyr Thr  
 485 490 495  
 Leu Asp Phe Ile Lys Leu Ala Asp Val Phe Tyr Ser His Glu Val Pro  
 500 505 510  
 Leu Arg Ile Gly Phe Val Phe Ile Leu Asn Thr Asp Asp Glu Val Asp  
 515 520 525  
 Gly Ala Asn Asp Ala Gly Val Ala Leu Trp Arg Ala Phe Asn Tyr Ile  
 530 535 540  
 Ala Glu Glu Phe Asp Ile Ser Glu Ala Phe Ile Ser Ile Val His Met  
 545 550 555 560  
 Tyr Gln Lys Val Lys Lys Asp Gln Asn Ile Leu Thr Val Asp Asn Val  
 565 570 575  
 Lys Ser Val Leu Gln Asn Thr Phe Pro His Ala Asn Ile Trp Asp Ile  
 580 585 590  
 Leu Gly Ile His Ser Lys Tyr Asp Glu Glu Arg Lys Ala Gly Ala Ser  
 595 600 605  
 Phe Tyr Lys Met Thr Gly Leu Gly Pro Leu Pro Gln Ala Leu Tyr Asn  
 610 615 620  
 Gly Glu Pro Phe Lys His Glu Glu Met Asn Ile Lys Glu Leu Lys Met  
 625 630 635 640  
 Ala Val Leu Gln Arg Met Met Asp Ala Ser Val Tyr Leu Gln Arg Glu  
 645 650 655  
 Val Phe Leu Gly Thr Leu Asn Asp Arg Thr Asn Ala Ile Asp Phe Leu  
 660 665 670  
 Met Asp Arg Asn Asn Val Val Pro Arg Ile Asn Thr Leu Ile Leu Arg  
 675 680 685  
 Thr Asn Gln Gln Tyr Leu Asn Leu Ile Ser Thr Ser Val Thr Ala Asp  
 690 695 700  
 Val Glu Asp Phe Ser Thr Phe Phe Phe Leu Asp Ser Gln Asp Lys Ser  
 705 710 715 720  
 Ala Val Ile Ala Lys Asn Met Tyr Tyr Leu Thr Gln Asp Asp Glu Ser  
 725 730 735  
 Ile Ile Ser Ala Val Thr Leu Trp Ile Ile Ala Asp Phe Asp Lys Pro  
 740 745 750

Ser Gly Arg Lys Leu Leu Phe Asn Ala Leu Lys His Met Lys Thr Ser  
 755 760 765  
 Val His Ser Arg Leu Gly Ile Ile Tyr Asn Pro Thr Ser Lys Ile Asn  
 770 775 780  
 Glu Glu Asn Thr Ala Ile Ser Arg Gly Ile Leu Ala Ala Phe Leu Thr  
 785 790 795 800  
 Gln Lys Asn Met Phe Leu Arg Ser Phe Leu Gly Gln Leu Ala Lys Glu  
 805 810 815  
 Glu Ile Ala Thr Ala Ile Tyr Ser Gly Asp Lys Ile Lys Thr Phe Leu  
 820 825 830  
 Ile Glu Gly Met Asp Lys Asn Ala Phe Glu Lys Lys Tyr Asn Thr Val  
 835 840 845  
 Gly Val Asn Ile Phe Arg Thr His Gln Leu Phe Cys Gln Asp Val Leu  
 850 855 860  
 Lys Leu Arg Pro Gly Glu Met Gly Ile Val Ser Asn Gly Arg Phe Leu  
 865 870 875 880  
 Gly Pro Leu Asp Glu Asp Phe Tyr Ala Glu Asp Phe Tyr Leu Leu Glu  
 885 890 895  
 Lys Ile Thr Phe Ser Asn Leu Gly Glu Lys Ile Lys Gly Ile Val Glu  
 900 905 910  
 Asn Met Gly Ile Asn Ala Asn Asn Met Ser Asp Phe Ile Met Lys Val  
 915 920 925  
 Asp Ala Leu Met Ser Ser Val Pro Lys Arg Ala Ser Arg Tyr Asp Val  
 930 935 940  
 Thr Phe Leu Arg Glu Asn His Ser Val Ile Lys Thr Asn Pro Gln Glu  
 945 950 955 960  
 Asn Asp Met Phe Phe Asn Val Ile Ala Ile Val Asp Pro Leu Thr Arg  
 965 970 975  
 Glu Ala Gln Lys Met Ala Gln Leu Leu Val Val Leu Gly Lys Ile Ile  
 980 985 990  
 Asn Met Lys Ile Lys Leu Phe Met Asn Cys Arg Gly Arg Leu Ser Glu  
 995 1000 1005  
 Ala Pro Leu Glu Ser Phe Tyr Arg Phe Val Leu Glu Pro Glu Leu Met  
 1010 1015 1020  
 Ser Gly Ala Asn Asp Val Ser Ser Leu Gly Pro Val Ala Lys Phe Leu  
 1025 1030 1035 1040  
 Asp Ile Pro Glu Ser Pro Leu Leu Ile Leu Asn Met Ile Thr Pro Glu  
 1045 1050 1055  
 Gly Trp Leu Val Glu Thr Val His Ser Asn Cys Asp Leu Asp Asn Ile  
 1060 1065 1070  
 His Leu Lys Asp Thr Glu Lys Thr Val Thr Ala Glu Tyr Glu Leu Glu  
 1075 1080 1085  
 Tyr Leu Leu Leu Glu Gly Gln Cys Phe Asp Lys Val Thr Glu Gln Pro  
 1090 1095 1100  
 Pro Arg Gly Leu Gln Phe Thr Leu Gly Thr Lys Asn Lys Pro Ala Val  
 1105 1110 1115 1120  
 Val Asp Thr Ile Val Met Ala His His Gly Tyr Phe Gln Leu Lys Ala  
 1125 1130 1135  
 Asn Pro Gly Ala Trp Ile Leu Arg Leu His Gln Gly Lys Ser Glu Asp  
 1140 1145 1150  
 Ile Tyr Gln Ile Val Gly His Glu Gly Thr Asp Ser Gln Ala Asp Leu  
 1155 1160 1165  
 Glu Asp Ile Ile Val Val Leu Asn Ser Phe Lys Ser Lys Ile Leu Lys  
 1170 1175 1180  
 Val Lys Val Lys Lys Glu Thr Asp Lys Ile Lys Glu Asp Ile Leu Thr  
 1185 1190 1195 1200  
 Asp Glu Asp Glu Lys Thr Lys Gly Leu Trp Asp Ser Ile Lys Ser Phe  
 1205 1210 1215  
 Thr Val Ser Leu His Lys Glu Asn Lys Lys Glu Lys Asp Val Leu Asn  
 1220 1225 1230  
 Ile Phe Ser Val Ala Ser Gly His Leu Tyr Glu Arg Phe Leu Arg Ile  
 1235 1240 1245  
 Met Met Leu Ser Val Leu Arg Asn Thr Lys Thr Pro Val Lys Phe Trp  
 1250 1255 1260

Leu Leu Lys Asn Tyr Leu Ser Pro Thr Phe Lys Glu Val Ile Pro His  
 1265 1270 1275 1280  
 Met Ala Lys Glu Tyr Gly Phe Arg Tyr Glu Leu Val Gln Tyr Arg Trp  
 1285 1290 1295  
 Pro Arg Trp Leu Arg Gln Gln Thr Glu Arg Gln Arg Ile Ile Trp Gly  
 1300 1305 1310  
 Tyr Lys Ile Leu Phe Leu Asp Val Leu Phe Pro Leu Ala Val Asp Lys  
 1315 1320 1325  
 Ile Ile Phe Val Asp Ala Asp Gln Ile Val Arg His Asp Leu Lys Glu  
 1330 1335 1340  
 Leu Arg Asp Phe Asp Leu Asp Gly Ala Pro Tyr Gly Tyr Thr Pro Phe  
 1345 1350 1355 1360  
 Cys Asp Ser Arg Arg Glu Met Asp Gly Tyr Arg Phe Trp Lys Thr Gly  
 1365 1370 1375  
 Tyr Trp Ala Ser His Leu Leu Arg Arg Lys Tyr His Ile Ser Ala Leu  
 1380 1385 1390  
 Tyr Val Val Asp Leu Lys Lys Phe Arg Arg Ile Gly Ala Gly Asp Arg  
 1395 1400 1405  
 Leu Arg Ser Gln Tyr Gln Ala Leu Ser Gln Asp Pro Asn Ser Leu Ser  
 1410 1415 1420  
 Asn Leu Asp Gln Asp Leu Pro Asn Asn Met Ile Tyr Gln Val Ala Ile  
 1425 1430 1435 1440  
 Lys Ser Leu Pro Gln Asp Trp Leu Trp Cys Glu Thr Trp Cys Asp Asp  
 1445 1450 1455  
 Glu Ser Lys Gln Arg Ala Lys Thr Ile Asp Leu Cys Asn Asn Pro Lys  
 1460 1465 1470  
 Thr Lys Glu Ser Lys Leu Lys Ala Ala Ala Arg Ile Val Pro Glu Trp  
 1475 1480 1485  
 Val Glu Tyr Asp Ala Glu Ile Arg Gln Leu Leu Asp His Leu Glu Asn  
 1490 1495 1500  
 Lys Lys Gln Asp Thr Ile Leu Thr His Asp Glu Leu \*  
 1505 1510 1515 1516

&lt;210&gt; 1365

&lt;211&gt; 367

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1365

Met Gln Pro Pro Leu Asp Leu Lys Gln Ile Leu Pro Phe Pro Leu Glu  
 1 5 10 15  
 Pro Ala Pro Thr Leu Gly Leu Phe Ser Asn Tyr Ser Thr Met Asp Pro  
 20 25 30  
 Val Gln Lys Ala Val Leu Ser His Thr Phe Gly Gly Pro Leu Leu Lys  
 35 40 45  
 Thr Lys Arg Pro Val Ile Ser Cys Asn Ile Cys Gln Ile Arg Phe Asn  
 50 55 60  
 Ser Gln Ser Gln Ala Glu Ala His Tyr Lys Gly Asn Arg His Ala Arg  
 65 70 75 80  
 Arg Val Lys Gly Ile Glu Ala Ala Lys Thr Arg Gly Arg Glu Pro Gly  
 85 90 95  
 Val Arg Glu Pro Gly Asp Pro Ala Pro Pro Gly Ser Thr Pro Thr Asn  
 100 105 110  
 Gly Asp Gly Val Ala Pro Arg Pro Val Ser Met Glu Asn Gly Leu Gly  
 115 120 125  
 Pro Ala Pro Gly Ser Pro Glu Lys Gln Pro Gly Ser Pro Ser Pro Pro  
 130 135 140  
 Ser Ile Pro Glu Thr Gly Gln Gly Val Thr Lys Gly Glu Gly Gly Thr  
 145 150 155 160  
 Pro Ala Pro Ala Ser Leu Pro Gly Gly Ser Lys Glu Glu Glu Glu Lys  
 165 170 175

Ala Lys Arg Leu Leu Tyr Cys Ala Leu Cys Lys Val Ala Val Asn Ser  
 180 185 190  
 Leu Ser Gln Leu Glu Ala His Asn Lys Gly Thr Lys His Lys Thr Ile  
 195 200 205  
 Leu Glu Ala Arg Ser Gly Leu Gly Pro Ile Lys Ala Tyr Pro Arg Leu  
 210 215 220  
 Gly Pro Pro Thr Pro Gly Glu Pro Glu Ala Pro Ala Gln Asp Arg Thr  
 225 230 235 240  
 Phe His Cys Glu Ile Cys Asn Val Lys Val Asn Ser Glu Val Gln Leu  
 245 250 255  
 Lys Gln His Ile Ser Ser Arg Arg His Arg Asp Gly Val Ala Gly Lys  
 260 265 270  
 Pro Asn Pro Leu Leu Ser Arg His Lys Lys Ser Arg Gly Ala Gly Glu  
 275 280 285  
 Leu Ala Gly Thr Leu Thr Phe Ser Lys Glu Leu Pro Lys Ser Leu Ala  
 290 295 300  
 Gly Gly Leu Leu Pro Ser Pro Leu Ala Val Ala Ala Val Met Ala Ala  
 305 310 315 320  
 Ala Ala Gly Ser Pro Leu Ser Leu Arg Pro Ala Pro Ala Ala Pro Leu  
 325 330 335  
 Leu Gln Gly Pro Pro Ile Thr His Pro Leu Leu His Pro Ala Pro Gly  
 340 345 350  
 Pro Ile Arg Thr Ala His Gly Pro Ile Leu Phe Ser Pro Tyr \*  
 355 360 365 366

<210> 1366  
 <211> 147  
 <212> PRT  
 <213> Homo sapiens

<400> 1366  
 Met Thr Ser Glu Arg Gly Gly Gly Arg Arg Val Ala Ser Cys Ser Asp  
 1 5 10 15  
 Pro Ala Thr Glu Ala Gly Ser Val Gln Arg Ser Leu Trp Phe Arg Phe  
 20 25 30  
 Pro Gly Pro Gln Asn Gly Thr Gln His Arg Phe Cys Ser Arg Ser Arg  
 35 40 45  
 Ser Gly Arg Met Glu Gly Ala Lys Gly Lys Glu Cys Thr Ala Gly His  
 50 55 60  
 Ser Trp Pro Ala Pro Ala Leu Trp Cys Leu Leu Pro Val Thr Ser Glu  
 65 70 75 80  
 Gly Arg Trp Thr Glu Pro Pro Ser Gly Leu Val Leu Phe Pro Ala Thr  
 85 90 95  
 Glu Arg Ala Gly Trp His Pro Thr Pro Gly Glu Gln Tyr Leu Val Pro  
 100 105 110  
 His Pro Leu Leu Pro Thr Thr Ser Lys Ala Lys Leu Gly Pro Ile Ala  
 115 120 125  
 Ser Thr Ala Trp Phe Ser Pro Ser Pro Leu Pro Arg Ser Gly Glu Leu  
 130 135 140  
 Asp Lys \*  
 145 146

<210> 1367  
 <211> 1517  
 <212> PRT  
 <213> Homo sapiens

<400> 1367

Met	Ala	Pro	Ala	Lys	Ala	Thr	Asn	Val	Val	Arg	Leu	Leu	Leu	Gly	Ser	1	5	10	15
Thr	Ala	Leu	Trp	Leu	Ser	Gln	Leu	Gly	Ser	Gly	Thr	Val	Ala	Ala	Ser	20	25	30	
Lys	Ser	Val	Thr	Ala	His	Leu	Ala	Ala	Lys	Trp	Pro	Glu	Thr	Pro	Leu	35	40	45	
Leu	Leu	Glu	Ala	Ser	Glu	Phe	Met	Ala	Glu	Glu	Ser	Asn	Glu	Lys	Phe	50	55	60	
Trp	Gln	Phe	Leu	Glu	Thr	Val	Gln	Glu	Leu	Ala	Ile	Tyr	Lys	Gln	Thr	65	70	75	80
Glu	Ser	Asp	Tyr	Ser	Tyr	Tyr	Asn	Leu	Ile	Leu	Lys	Lys	Ala	Gly	Gln	85	90	95	
Phe	Leu	Asp	Asn	Leu	His	Ile	Asn	Leu	Leu	Lys	Phe	Ala	Phe	Ser	Ile	100	105	110	
Arg	Ala	Tyr	Ser	Pro	Ala	Ile	Gln	Met	Phe	Gln	Gln	Ile	Ala	Ala	Asp	115	120	125	
Glu	Pro	Pro	Pro	Asp	Gly	Cys	Asn	Ala	Phe	Val	Val	Ile	His	Lys	Lys	130	135	140	
His	Thr	Cys	Lys	Ile	Asn	Glu	Ile	Lys	Lys	Leu	Leu	Lys	Lys	Ala	Ala	145	150	155	160
Ser	Arg	Thr	Arg	Pro	Tyr	Leu	Phe	Lys	Gly	Asp	His	Lys	Phe	Pro	Thr	165	170	175	
Asn	Lys	Glu	Asn	Leu	Pro	Val	Val	Ile	Leu	Tyr	Ala	Glu	Met	Gly	Thr	180	185	190	
Arg	Thr	Phe	Ser	Ala	Phe	His	Lys	Val	Leu	Ser	Glu	Lys	Ala	Gln	Asn	195	200	205	
Glu	Glu	Ile	Leu	Tyr	Val	Leu	Arg	His	Tyr	Ile	Gln	Lys	Pro	Ser	Ser	210	215	220	
Arg	Lys	Met	Tyr	Leu	Ser	Gly	Tyr	Gly	Val	Glu	Leu	Ala	Ile	Lys	Ser	225	230	235	240
Thr	Glu	Tyr	Lys	Ala	Leu	Asp	Asp	Thr	Gln	Val	Lys	Thr	Val	Thr	Asn	245	250	255	
Thr	Thr	Val	Glu	Asp	Glu	Thr	Glu	Thr	Asn	Glu	Val	Gln	Gly	Phe	Leu	260	265	270	
Phe	Gly	Lys	Leu	Lys	Glu	Ile	Tyr	Ser	Asp	Leu	Arg	Asp	Asn	Leu	Thr	275	280	285	
Ala	Phe	Gln	Lys	Tyr	Leu	Ile	Glu	Ser	Asn	Lys	Gln	Met	Met	Pro	Leu	290	295	300	
Lys	Val	Trp	Glu	Leu	Gln	Asp	Leu	Ser	Phe	Gln	Ala	Ala	Ser	Gln	Ile	305	310	315	320
Met	Ser	Ala	Pro	Val	Tyr	Asp	Ala	Ile	Lys	Leu	Met	Lys	Asp	Ile	Ser	325	330	335	
Gln	Asn	Phe	Pro	Ile	Lys	Ala	Arg	Ser	Leu	Thr	Arg	Ile	Ala	Val	Asn	340	345	350	
Gln	His	Met	Arg	Glu	Glu	Ile	Lys	Glu	Asn	Gln	Lys	Asp	Leu	Gln	Val	355	360	365	
Arg	Phe	Lys	Ile	Gln	Pro	Gly	Asp	Ala	Arg	Leu	Phe	Ile	Asn	Gly	Leu	370	375	380	
Arg	Val	Asp	Met	Asp	Val	Tyr	Asp	Ala	Phe	Ser	Ile	Leu	Asp	Met	Leu	385	390	395	400
Lys	Leu	Glu	Gly	Lys	Met	Met	Asn	Gly	Leu	Arg	Asn	Leu	Gly	Ile	Asn	405	410	415	
Gly	Glu	Asp	Met	Ser	Lys	Phe	Leu	Lys	Leu	Asn	Ser	His	Ile	Trp	Glu	420	425	430	
Tyr	Thr	Tyr	Val	Leu	Asp	Ile	Arg	His	Ser	Ser	Ile	Met	Trp	Ile	Asn	435	440	445	
Asp	Leu	Glu	Asn	Asp	Asp	Leu	Tyr	Ile	Thr	Trp	Pro	Thr	Ser	Cys	Gln	450	455	460	
Lys	Leu	Leu	Lys	Pro	Val	Phe	Pro	Gly	Ser	Val	Pro	Ser	Ile	Arg	Arg	465	470	475	480
Asn	Phe	His	Asn	Leu	Val	Leu	Phe	Ile	Asp	Pro	Ala	Gln	Glu	Tyr	Thr	485	490	495	
Leu	Asp	Phe	Ile	Lys	Leu	Ala	Asp	Val	Phe	Tyr	Ser	His	Glu	Val	Pro	500	505	510	

Leu Arg Ile Gly Phe Val Phe Ile Leu Asn Thr Asp Asp Glu Val Asp  
 515 520 525  
 Gly Ala Asn Asp Ala Gly Val Ala Leu Trp Arg Ala Phe Asn Tyr Ile  
 530 535 540  
 Ala Glu Glu Phe Asp Ile Ser Glu Ala Phe Ile Ser Ile Val His Met  
 545 550 555 560  
 Tyr Gln Lys Val Lys Lys Asp Gln Asn Ile Leu Thr Val Asp Asn Val  
 565 570 575  
 Lys Ser Val Leu Gln Asn Thr Phe Pro His Ala Asn Ile Trp Asp Ile  
 580 585 590  
 Leu Gly Ile His Ser Lys Tyr Asp Glu Glu Arg Lys Ala Gly Ala Ser  
 595 600 605  
 Phe Tyr Lys Met Thr Gly Leu Gly Pro Leu Pro Gln Ala Leu Tyr Asn  
 610 615 620  
 Gly Glu Pro Phe Lys His Glu Glu Met Asn Ile Lys Glu Leu Lys Met  
 625 630 635 640  
 Ala Val Leu Gln Arg Met Met Asp Ala Ser Val Tyr Leu Gln Arg Glu  
 645 650 655  
 Val Phe Leu Gly Thr Leu Asn Asp Arg Thr Asn Ala Ile Asp Phe Leu  
 660 665 670  
 Met Asp Arg Asn Asn Val Val Pro Arg Ile Asn Thr Leu Ile Leu Arg  
 675 680 685  
 Thr Asn Gln Gln Tyr Leu Asn Leu Ile Ser Thr Ser Val Thr Ala Asp  
 690 695 700  
 Val Glu Asp Phe Ser Thr Phe Phe Phe Leu Asp Ser Gln Asp Lys Ser  
 705 710 715 720  
 Ala Val Ile Ala Lys Asn Met Tyr Tyr Leu Thr Gln Asp Asp Glu Ser  
 725 730 735  
 Ile Ile Ser Ala Val Thr Leu Trp Ile Ile Ala Asp Phe Asp Lys Pro  
 740 745 750  
 Ser Gly Arg Lys Leu Leu Phe Asn Ala Leu Lys His Met Lys Thr Ser  
 755 760 765  
 Val His Ser Arg Leu Gly Ile Ile Tyr Asn Pro Thr Ser Lys Ile Asn  
 770 775 780  
 Glu Glu Asn Thr Ala Ile Ser Arg Gly Ile Leu Ala Ala Phe Leu Thr  
 785 790 795 800  
 Gln Lys Asn Met Phe Leu Arg Ser Phe Leu Gly Gln Leu Ala Lys Glu  
 805 810 815  
 Glu Ile Ala Thr Ala Ile Tyr Ser Gly Asp Lys Ile Lys Thr Phe Leu  
 820 825 830  
 Ile Glu Gly Met Asp Lys Asn Ala Phe Glu Lys Lys Tyr Asn Thr Val  
 835 840 845  
 Gly Val Asn Ile Phe Arg Thr His Gln Leu Phe Cys Gln Asp Val Leu  
 850 855 860  
 Lys Leu Arg Pro Gly Glu Met Gly Ile Val Ser Asn Gly Arg Phe Leu  
 865 870 875 880  
 Gly Pro Leu Asp Glu Asp Phe Tyr Ala Glu Asp Phe Tyr Leu Leu Glu  
 885 890 895  
 Lys Ile Thr Phe Ser Asn Leu Gly Glu Lys Ile Lys Gly Ile Val Glu  
 900 905 910  
 Asn Met Gly Ile Asn Ala Asn Asn Met Ser Asp Phe Ile Met Lys Val  
 915 920 925  
 Asp Ala Leu Met Ser Ser Val Pro Lys Arg Ala Ser Arg Tyr Asp Val  
 930 935 940  
 Thr Phe Leu Arg Glu Asn His Ser Val Ile Lys Thr Asn Pro Gln Glu  
 945 950 955 960  
 Asn Asp Met Phe Phe Asn Val Ile Ala Ile Val Asp Pro Leu Thr Arg  
 965 970 975  
 Glu Ala Gln Lys Met Ala Gln Leu Leu Val Val Leu Gly Lys Ile Ile  
 980 985 990  
 Asn Met Lys Ile Lys Leu Phe Met Asn Cys Arg Gly Arg Leu Ser Glu  
 995 1000 1005  
 Ala Pro Leu Glu Ser Phe Tyr Arg Phe Val Leu Glu Pro Glu Leu Met  
 1010 1015 1020



Ser Gly Ala Asn Asp Val Ser Ser Leu Gly Pro Val Ala Lys Phe Leu  
 1025 1030 1035 1040  
 Asp Ile Pro Glu Ser Pro Leu Leu Ile Leu Asn Met Ile Thr Pro Glu  
 1045 1050 1055  
 Gly Trp Leu Val Glu Thr Val His Ser Asn Cys Asp Leu Asp Asn Ile  
 1060 1065 1070  
 His Leu Lys Asp Thr Glu Lys Thr Val Thr Ala Glu Tyr Glu Leu Glu  
 1075 1080 1085  
 Tyr Leu Leu Leu Glu Gly Gln Cys Phe Asp Lys Val Thr Glu Gln Pro  
 1090 1095 1100  
 Pro Arg Gly Leu Gln Phe Thr Leu Gly Thr Lys Asn Lys Pro Ala Val  
 1105 1110 1115 1120  
 Val Asp Thr Ile Val Met Ala His His Gly Tyr Phe Gln Leu Lys Ala  
 1125 1130 1135  
 Asn Pro Gly Ala Trp Ile Leu Arg Leu His Gln Gly Lys Ser Glu Asp  
 1140 1145 1150  
 Ile Tyr Gln Ile Val Gly His Glu Gly Thr Asp Ser Gln Ala Asp Leu  
 1155 1160 1165  
 Glu Asp Ile Ile Val Val Leu Asn Ser Phe Lys Ser Lys Ile Leu Lys  
 1170 1175 1180  
 Val Lys Val Lys Lys Glu Thr Asp Lys Ile Lys Glu Asp Ile Leu Thr  
 1185 1190 1195 1200  
 Asp Glu Asp Glu Lys Thr Lys Gly Leu Trp Asp Ser Ile Lys Ser Phe  
 1205 1210 1215  
 Thr Val Ser Leu His Lys Glu Asn Lys Lys Glu Lys Asp Val Leu Asn  
 1220 1225 1230  
 Ile Phe Ser Val Ala Ser Gly His Leu Tyr Glu Arg Phe Leu Arg Ile  
 1235 1240 1245  
 Met Met Leu Ser Val Leu Arg Asn Thr Lys Thr Pro Val Lys Phe Trp  
 1250 1255 1260  
 Leu Leu Lys Asn Tyr Leu Ser Pro Thr Phe Lys Glu Val Ile Pro His  
 1265 1270 1275 1280  
 Met Ala Lys Glu Tyr Gly Phe Arg Tyr Glu Leu Val Gln Tyr Arg Trp  
 1285 1290 1295  
 Pro Arg Trp Leu Arg Gln Gln Thr Glu Arg Gln Arg Ile Ile Trp Gly  
 1300 1305 1310  
 Tyr Lys Ile Leu Phe Leu Asp Val Leu Phe Pro Leu Ala Val Asp Lys  
 1315 1320 1325  
 Ile Ile Phe Val Asp Ala Asp Gln Ile Val Arg His Asp Leu Lys Glu  
 1330 1335 1340  
 Leu Arg Asp Phe Asp Leu Asp Gly Ala Pro Tyr Gly Tyr Thr Pro Phe  
 1345 1350 1355 1360  
 Cys Asp Ser Arg Arg Glu Met Asp Gly Tyr Arg Phe Trp Lys Thr Gly  
 1365 1370 1375  
 Tyr Trp Ala Ser His Leu Leu Arg Arg Lys Tyr His Ile Ser Ala Leu  
 1380 1385 1390  
 Tyr Val Val Asp Leu Lys Lys Phe Arg Arg Ile Gly Ala Gly Asp Arg  
 1395 1400 1405  
 Leu Arg Ser Gln Tyr Gln Ala Leu Ser Gln Asp Pro Asn Ser Leu Ser  
 1410 1415 1420  
 Asn Leu Asp Gln Asp Leu Pro Asn Asn Met Ile Tyr Gln Val Ala Ile  
 1425 1430 1435 1440  
 Lys Ser Leu Pro Gln Asp Trp Leu Trp Cys Glu Thr Trp Cys Asp Asp  
 1445 1450 1455  
 Glu Ser Lys Gln Arg Ala Lys Thr Ile Asp Leu Cys Asn Asn Pro Lys  
 1460 1465 1470  
 Thr Lys Glu Ser Lys Leu Lys Ala Ala Arg Ile Val Pro Glu Trp  
 1475 1480 1485  
 Val Glu Tyr Asp Ala Glu Ile Arg Gln Leu Leu Asp His Leu Glu Asn  
 1490 1495 1500  
 Lys Lys Gln Asp Thr Ile Leu Thr His Asp Glu Leu \*  
 1505 1510 1515 1516

<210> 1368  
 <211> 457  
 <212> PRT  
 <213> Homo sapiens

<400> 1368  
 Met Glu Gly Pro Glu Gly Leu Gly Arg Lys Gln Ala Cys Leu Ala Met  
 1 5 10 15  
 Leu Leu His Phe Leu Asp Thr Tyr Gln Gly Leu Leu Gln Glu Glu  
 20 25 30  
 Gly Ala Gly His Ile Ile Lys Asp Leu Tyr Leu Leu Ile Met Lys Asp  
 35 40 45  
 Glu Ser Leu Tyr Gln Gly Leu Arg Glu Asp Thr Leu Arg Leu His Gln  
 50 55 60  
 Leu Val Glu Thr Val Glu Leu Lys Ile Pro Glu Asn Gln Pro Pro  
 65 70 75 80  
 Ser Lys Gln Val Lys Pro Leu Phe Arg His Phe Arg Arg Ile Asp Ser  
 85 90 95  
 Cys Leu Gln Thr Arg Val Ala Phe Arg Gly Ser Asp Glu Ile Phe Cys  
 100 105 110  
 Arg Val Tyr Met Pro Asp His Ser Tyr Val Thr Ile Arg Ser Arg Leu  
 115 120 125  
 Ser Ala Ser Val Gln Asp Ile Leu Gly Ser Val Thr Glu Lys Leu Gln  
 130 135 140  
 Tyr Ser Glu Glu Pro Ala Gly Arg Glu Asp Ser Leu Ile Leu Val Ala  
 145 150 155 160  
 Val Ser Ser Ser Gly Glu Lys Val Leu Leu Gln Pro Thr Glu Asp Cys  
 165 170 175  
 Val Phe Thr Ala Leu Gly Ile Asn Ser His Leu Phe Ala Cys Thr Arg  
 180 185 190  
 Asp Ser Tyr Glu Ala Leu Val Pro Leu Pro Glu Glu Ile Gln Val Ser  
 195 200 205  
 Pro Gly Asp Thr Glu Ile His Arg Val Glu Pro Glu Asp Val Ala Asn  
 210 215 220  
 His Leu Thr Ala Phe His Trp Glu Leu Phe Arg Cys Val His Glu Leu  
 225 230 235 240  
 Glu Phe Val Asp Tyr Val Phe His Gly Glu Arg Gly Arg Arg Glu Thr  
 245 250 255  
 Ala Asn Leu Glu Leu Leu Leu Gln Arg Cys Ser Glu Val Thr His Trp  
 260 265 270  
 Val Ala Thr Glu Val Leu Leu Cys Glu Ala Pro Gly Lys Arg Ala Gln  
 275 280 285  
 Leu Leu Lys Lys Phe Ile Lys Ile Ala Ala Leu Cys Lys Gln Asn Gln  
 290 295 300  
 Asp Leu Leu Ser Phe Tyr Ala Val Val Met Gly Leu Asp Asn Ala Ala  
 305 310 315 320  
 Val Ser Arg Leu Arg Leu Thr Trp Glu Lys Leu Pro Gly Lys Phe Lys  
 325 330 335  
 Asn Leu Phe Arg Lys Phe Glu Asn Leu Thr Asp Pro Cys Arg Asn His  
 340 345 350  
 Lys Ser Tyr Arg Glu Val Ile Ser Lys Met Lys Pro Pro Val Ile Pro  
 355 360 365  
 Phe Val Pro Leu Ile Leu Lys Asp Leu Thr Phe Leu His Glu Gly Ser  
 370 375 380  
 Lys Thr Leu Val Asp Gly Leu Val Asn Ile Glu Lys Leu His Ser Val  
 385 390 395 400  
 Ala Glu Lys Val Arg Thr Ile Arg Lys Tyr Arg Ser Arg Pro Leu Cys  
 405 410 415  
 Leu Asp Met Glu Ala Ser Pro Asn His Leu Gln Thr Lys Ala Tyr Val  
 420 425 430  
 Arg Gln Phe Gln Val Ile Asp Asn Gln Asn Leu Leu Phe Glu Leu Ser  
 435 440 445

Tyr Lys Leu Glu Ala Asn Ser Gln \*  
 450 455 456

<210> 1369  
 <211> 560  
 <212> PRT  
 <213> Homo sapiens

<400> 1369  
 Met Asp Ser Pro Gly Tyr Asn Cys Phe Val Asp Lys Asp Lys Met Asp  
 1 5 10 15  
 Ala Ala Ile Gln Asp Leu Gly Pro Lys Glu Leu Ser Cys Thr Glu Leu  
 20 25 30  
 Gln Glu Leu Lys Gln Leu Ala Arg Gln Gly Tyr Trp Ala Gln Ser His  
 35 40 45  
 Ala Leu Arg Gly Lys Val Tyr Gln Arg Leu Ile Arg Asp Ile Pro Cys  
 50 55 60  
 Arg Thr Val Thr Pro Asp Ala Ser Val Tyr Ser Asp Ile Val Gly Lys  
 65 70 75 80  
 Ile Val Gly Lys His Ser Ser Ser Cys Leu Pro Leu Pro Glu Phe Val  
 85 90 95  
 Asp Asn Thr Gln Val Pro Ser Tyr Cys Leu Asn Ala Arg Gly Glu Gly  
 100 105 110  
 Ala Val Arg Lys Ile Leu Leu Cys Leu Ala Asn Gln Phe Pro Asp Ile  
 115 120 125  
 Ser Phe Cys Pro Ala Leu Pro Ala Val Val Ala Leu Leu Leu His Tyr  
 130 135 140  
 Ser Ile Asp Glu Ala Glu Cys Phe Glu Lys Ala Cys Arg Ile Leu Ala  
 145 150 155 160  
 Cys Asn Asp Pro Gly Arg Arg Leu Ile Asp Gln Ser Phe Leu Ala Phe  
 165 170 175  
 Glu Ser Ser Cys Met Thr Phe Gly Asp Leu Val Asn Lys Tyr Cys Gln  
 180 185 190  
 Ala Ala His Lys Leu Met Val Ala Val Ser Glu Asp Val Leu Gln Val  
 195 200 205  
 Tyr Ala Asp Trp Gln Arg Trp Leu Phe Gly Glu Leu Pro Leu Cys Tyr  
 210 215 220  
 Phe Ala Arg Val Phe Asp Val Phe Leu Val Glu Gly Tyr Lys Val Leu  
 225 230 235 240  
 Tyr Arg Val Ala Leu Ala Ile Leu Lys Phe Phe His Lys Val Arg Ala  
 245 250 255  
 Gly Gln Pro Leu Glu Ser Asp Ser Val Lys Gln Asp Ile Arg Thr Phe  
 260 265 270  
 Val Arg Asp Ile Ala Lys Thr Val Ser Pro Glu Lys Leu Leu Glu Lys  
 275 280 285  
 Ala Phe Ala Ile Arg Leu Leu Ser Arg Lys Glu Ile Gln Leu Leu Gln  
 290 295 300  
 Met Ala Asn Glu Lys Ala Leu Lys Gln Lys Gly Ile Thr Val Lys Gln  
 305 310 315 320  
 Lys Ser Val Ser Leu Ser Lys Arg Gln Phe Val His Leu Ala Val His  
 325 330 335  
 Ala Glu Asn Phe Arg Ser Glu Ile Val Ser Val Arg Glu Met Arg Asp  
 340 345 350  
 Ile Trp Ser Trp Val Pro Glu Arg Phe Ala Leu Cys Gln Pro Leu Leu  
 355 360 365  
 Leu Phe Ser Ser Leu Gln His Gly Tyr Ser Leu Ala Arg Phe Tyr Phe  
 370 375 380  
 Gln Cys Glu Gly His Glu Pro Thr Leu Leu Leu Ile Lys Thr Thr Gln  
 385 390 395 400  
 Lys Glu Val Cys Gly Ala Tyr Leu Ser Thr Asp Trp Ser Glu Arg Asn  
 405 410 415

Lys Phe Gly Gly Lys Leu Gly Phe Phe Gly Thr Gly Glu Cys Phe Val  
                           420                          425                          430  
 Phe Arg Leu Gln Pro Glu Val Gln Arg Tyr Glu Trp Val Val Ile Lys  
                           435                          440                          445  
 His Pro Glu Leu Thr Lys Pro Pro Pro Leu Met Ala Ala Glu Pro Thr  
                           450                          455                          460  
 Ala Pro Leu Ser His Ser Ala Ser Ser Asp Pro Ala Asp Arg Leu Ser  
                           465                          470                          475                          480  
 Pro Phe Leu Ala Ala Arg His Phe Asn Leu Pro Ser Lys Thr Glu Ser  
                           485                          490                          495  
 Met Phe Met Ala Gly Gly Ser Asp Cys Leu Ile Val Gly Gly Gly Gly  
                           500                          505                          510  
 Gly Gln Ala Leu Tyr Ile Asp Gly Asp Leu Asn Arg Gly Arg Thr Ser  
                           515                          520                          525  
 His Cys Asp Thr Phe Asn Asn Gln Pro Leu Cys Ser Glu Asn Phe Leu  
                           530                          535                          540  
 Ile Ala Ala Val Lys Ala Trp Gly Phe Gln Asp Pro Asp Thr Gln \*  
                           545                          550                          555                          559

&lt;210&gt; 1370

&lt;211&gt; 478

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1370

Met Pro Gly Ser Asp Thr Ala Leu Thr Val Asp Arg Thr Tyr Ser Asp  
   1                          5                          10                          15  
 Pro Gly Arg His Arg Cys Lys Ser Arg Val Glu Arg His Asp Met  
                           20                          25                          30  
 Asn Thr Leu Ser Leu Pro Leu Asn Ile Arg Arg Gly Gly Ser Asp Thr  
                           35                          40                          45  
 Asn Leu Asn Phe Asp Val Pro Asp Gly Ile Leu Asp Phe His Lys Val  
                           50                          55                          60  
 Lys Leu Thr Ala Asp Ser Leu Lys Gln Lys Ile Leu Lys Val Thr Glu  
                           65                          70                          75                          80  
 Gln Ile Lys Ile Glu Gln Thr Ser Arg Asp Gly Asn Val Ala Glu Tyr  
                           85                          90                          95  
 Leu Lys Leu Val Asn Asn Ala Asp Lys Gln Gln Ala Gly Arg Ile Lys  
                           100                          105                          110  
 Gln Val Phe Glu Lys Lys Asn Gln Lys Ser Ala His Ser Ile Ala Gln  
                           115                          120                          125  
 Leu Gln Lys Lys Leu Glu Gln Tyr His Arg Lys Leu Arg Glu Ile Glu  
                           130                          135                          140  
 Gln Asn Gly Ala Ser Arg Ser Ser Lys Asp Ile Ser Lys Asp His Leu  
                           145                          150                          155                          160  
 Lys Asp Ile His Arg Ser Leu Lys Asp Ala His Val Lys Ser Arg Thr  
                           165                          170                          175  
 Ala Pro His Cys Met Glu Ser Ser Lys Ser Gly Met Pro Gly Val Ser  
                           180                          185                          190  
 Leu Thr Pro Pro Val Phe Val Phe Asn Lys Ser Arg Glu Phe Ala Asn  
                           195                          200                          205  
 Leu Ile Arg Asn Lys Phe Gly Ser Ala Asp Asn Ile Ala His Leu Lys  
                           210                          215                          220  
 Asn Ser Leu Glu Glu Phe Arg Pro Glu Ala Ser Ala Arg Ala Tyr Gly  
                           225                          230                          235                          240  
 Gly Ser Ala Thr Ile Val Asn Lys Pro Lys Tyr Gly Ser Asp Asp Glu  
                           245                          250                          255  
 Cys Ser Ser Gly Thr Ser Gly Ser Ala Asp Ser Asn Gly Asn Gln Ser  
                           260                          265                          270  
 Phe Gly Ala Gly Gly Ala Ser Thr Leu Asp Ser Gln Gly Lys Leu Ala  
                           275                          280                          285

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Val Ile Leu Glu Glu Leu Arg Glu Ile Lys Asp Thr Gln Ala Gln Leu
 290                295                300
Ala Glu Asp Ile Glu Ala Leu Lys Val Gln Phe Lys Arg Glu Tyr Gly
 305                310                315                320
Phe Ile Ser Gln Thr Leu Gln Glu Glu Arg Tyr Arg Tyr Glu Arg Leu
                325                330                335
Glu Asp Gln Leu His Asp Leu Thr Asp Leu His Gln His Glu Thr Ala
                340                345                350
Asn Leu Lys Gln Glu Leu Ala Ser Ile Glu Glu Lys Val Ala Tyr Gln
                355                360                365
Ala Tyr Glu Arg Ser Arg Asp Ile Gln Glu Ala Leu Glu Ser Cys Gln
                370                375                380
Thr Arg Ile Ser Lys Leu Glu Leu His Gln Gln Glu Gln Gln Ala Leu
 385                390                395                400
Gln Thr Asp Thr Val Asn Ala Lys Val Leu Leu Gly Arg Cys Ile Asn
                405                410                415
Val Ile Leu Ala Phe Met Thr Val Ile Leu Val Cys Val Ser Thr Ile
                420                425                430
Ala Lys Phe Val Ser Pro Met Met Lys Ser Arg Cys His Ile Leu Gly
                435                440                445
Thr Phe Phe Ala Val Thr Leu Leu Ala Ile Phe Cys Lys Asn Trp Asp
                450                455                460
His Ile Leu Cys Ala Ile Glu Arg Met Ile Ile Pro Arg *
 465                470                475                477

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&lt;210&gt; 1371

&lt;211&gt; 220

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1371

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Met Thr Ala Ala Ala Ala Ser Asn Trp Gly Leu Ile Thr Asn Ile Val
 1                5                10                15
Asn Ser Ile Val Gly Val Ser Val Leu Thr Met Pro Phe Cys Phe Lys
                20                25                30
Gln Cys Gly Ile Val Leu Gly Ala Leu Leu Leu Val Phe Cys Ser Trp
                35                40                45
Met Thr His Gln Ser Cys Met Phe Leu Val Lys Ser Ala Ser Leu Ser
                50                55                60
Lys Arg Arg Thr Tyr Ala Gly Leu Ala Phe His Ala Tyr Gly Lys Ala
                65                70                75                80
Gly Lys Met Leu Val Glu Thr Ser Met Ile Gly Leu Met Leu Gly Thr
                85                90                95
Cys Ile Ala Phe Tyr Val Val Ile Gly Asp Leu Gly Ser Asn Phe Phe
                100                105                110
Ala Arg Leu Phe Gly Phe Gln Val Gly Gly Thr Phe Arg Met Phe Leu
                115                120                125
Leu Phe Ala Val Ser Leu Cys Ile Val Leu Pro Leu Ser Leu Gln Arg
                130                135                140
Asn Met Met Ala Ser Ile Gln Ser Phe Ser Ala Met Ala Leu Leu Phe
                145                150                155                160
Tyr Thr Val Phe Met Phe Val Ile Val Leu Ser Pro Leu Lys His Gly
                165                170                175
Leu Phe Ser Gly Gln Trp Leu Arg Arg Val Ser Tyr Val Arg Trp Glu
                180                185                190
Gly Val Phe Arg Cys Ile Pro Ile Phe Gly His Val Leu Arg Leu Pro
                195                200                205
Val Pro Ser Ala Ala His Leu Arg Gln Pro Gly *
                210                215                219

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<210> 1372  
 <211> 2064  
 <212> PRT  
 <213> Homo sapiens

<400> 1372  
 Met Val Leu Asp Asp Leu Pro Asn Leu Glu Asp Ile Tyr Thr Ser Leu  
 1 5 10 15  
 Cys Ser Ser Thr Met Glu Asp Ser Glu Met Asp Phe Asp Ser Gly Leu  
 20 25 30  
 Glu Asp Asp Asp Thr Lys Ser Asp Ser Ile Leu Glu Asp Ser Thr Ile  
 35 40 45  
 Phe Val Ala Phe Lys Gly Asn Ile Asp Asp Lys Asp Phe Lys Trp Lys  
 50 55 60  
 Leu Asp Ala Ile Leu Lys Asn Val Pro Asn Leu Leu His Met Glu Ser  
 65 70 75 80  
 Ser Lys Leu Lys Val Gln Lys Val Glu Pro Trp Asn Ser Val Arg Val  
 85 90 95  
 Thr Phe Asn Ile Pro Arg Glu Ala Ala Glu Arg Leu Arg Ile Leu Ala  
 100 105 110  
 Gln Ser Asn Asn Gln Gln Leu Arg Asp Leu Gly Ile Leu Ser Val Gln  
 115 120 125  
 Ile Glu Gly Glu Gly Ala Ile Asn Leu Ala Leu Ala Gln Asn Arg Ser  
 130 135 140  
 Gln Asp Val Arg Met Asn Gly Pro Met Gly Ala Gly Asn Ser Val Arg  
 145 150 155 160  
 Met Glu Ala Gly Phe Pro Met Ala Ser Gly Pro Gly Ile Ile Arg Met  
 165 170 175  
 Asn Asn Pro Ala Thr Val Met Ile Pro Pro Gly Gly Asn Val Ser Ser  
 180 185 190  
 Ser Met Met Ala Pro Gly Pro Asn Pro Glu Leu Gln Pro Arg Thr Pro  
 195 200 205  
 Arg Pro Ala Ser Gln Ser Asp Ala Met Asp Pro Leu Leu Ser Gly Leu  
 210 215 220  
 His Ile Gln Gln Gln Ser His Pro Ser Gly Ser Leu Ala Pro Pro His  
 225 230 235 240  
 His Pro Met Gln Pro Val Ser Val Asn Arg Gln Met Asn Pro Ala Asn  
 245 250 255  
 Phe Pro Gln Leu Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln  
 260 265 270  
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Leu Gln Ala  
 275 280 285  
 Arg Pro Pro Gln Gln His Gln Gln Gln Gln Pro Gln Gly Ile Arg Pro  
 290 295 300  
 Gln Phe Thr Ala Pro Thr Gln Val Pro Val Pro Pro Gly Trp Asn Gln  
 305 310 315 320  
 Leu Pro Ser Gly Ala Leu Gln Pro Pro Pro Ala Gln Gly Ser Leu Gly  
 325 330 335  
 Thr Met Thr Ala Asn Gln Gly Trp Lys Lys Ala Pro Leu Pro Gly Pro  
 340 345 350  
 Met Gln Gln Gln Leu Gln Ala Arg Pro Ser Leu Ala Thr Val Gln Thr  
 355 360 365  
 Pro Ser His Pro Pro Pro Pro Tyr Pro Phe Gly Ser Gln Gln Ala Ser  
 370 375 380  
 Gln Ala His Thr Asn Phe Pro Gln Met Ser Asn Pro Gly Gln Phe Thr  
 385 390 395 400  
 Ala Pro Gln Met Lys Ser Leu Gln Gly Gly Pro Ser Arg Val Pro Thr  
 405 410 415  
 Pro Leu Gln Gln Pro His Leu Thr Asn Lys Ser Pro Ala Ser Ser Pro  
 420 425 430  
 Ser Ser Phe Gln Gln Gly Ser Pro Ala Ser Ser Pro Thr Val Asn Gln  
 435 440 445

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Thr Gln Gln Gln Met Gly Pro Arg Pro Pro Gln Asn Asn Pro Leu Pro
450 455 460
Gln Gly Phe Gln Gln Pro Val Ser Ser Pro Gly Arg Asn Pro Met Val
465 470 475 480
Gln Gln Gly Asn Val Pro Pro Asn Phe Met Val Met Gln Gln Gln Pro
485 490 495
Pro Asn Gln Gly Pro Gln Ser Leu His Pro Gly Leu Gly Gly Met Pro
500 505 510
Lys Arg Leu Pro Pro Gly Phe Ser Ala Gly Gln Ala Asn Pro Asn Phe
515 520 525
Met Gln Gly Gln Val Pro Ser Thr Thr Ala Thr Thr Pro Gly Asn Ser
530 535 540
Gly Ala Pro Gln Leu Gln Ala Asn Gln Asn Val Gln His Ala Gly Gly
545 550 555 560
Gln Gly Ala Gly Pro Gln Asn Gln Met Gln Val Ser His Gly Pro
565 570 575
Pro Asn Met Met Gln Pro Ser Leu Met Gly Ile His Gly Asn Met Asn
580 585 590
Asn Gln Gln Ala Gly Thr Ser Gly Val Pro Gln Val Asn Leu Ser Asn
595 600 605
Met Gln Gly Gln Pro Gln Gln Gly Pro Pro Ser Gln Leu Met Gly Met
610 615 620
His Gln Gln Ile Val Pro Ser Gln Gly Gln Met Val Gln Gln Gln Gly
625 630 635 640
Thr Leu Asn Pro Gln Asn Pro Met Ile Leu Ser Arg Ala Gln Leu Met
645 650 655
Pro Gln Gly Gln Met Met Val Asn Pro Pro Ser Gln Asn Leu Gly Pro
660 665 670
Ser Pro Gln Arg Met Thr Pro Pro Lys Gln Met Leu Ser Gln Gln Gly
675 680 685
Pro Gln Met Met Ala Pro His Asn Gln Met Met Gly Pro Gln Gly Gln
690 695 700
Val Leu Leu Gln Gln Asn Pro Met Ile Glu Gln Ile Met Thr Asn Gln
705 710 715 720
Met Gln Gly Asn Lys Gln Gln Phe Asn Thr Gln Asn Gln Ser Asn Val
725 730 735
Met Pro Gly Pro Ala Gln Ile Met Arg Gly Pro Thr Pro Asn Met Gln
740 745 750
Gly Asn Met Val Gln Phe Thr Gly Gln Met Ser Gly Gln Met Leu Pro
755 760 765
Gln Gln Gly Pro Val Asn Asn Ser Pro Ser Gln Val Met Gly Ile Gln
770 775 780
Gly Gln Val Leu Arg Pro Gly Pro Ser Pro His Met Ala Gln Gln
785 790 795 800
His Gly Asp Pro Ala Thr Thr Ala Asn Asn Asp Val Ser Leu Ser Gln
805 810 815
Met Met Pro Asp Val Ser Ile Gln Gln Thr Asn Met Val Pro Pro His
820 825 830
Val Gln Ala Met Gln Gly Asn Ser Ala Ser Gly Asn His Phe Ser Gly
835 840 845
His Gly Met Ser Phe Asn Ala Pro Phe Ser Gly Ala Pro Asn Gly Asn
850 855 860
Gln Met Ser Cys Gly Gln Asn Pro Gly Phe Pro Val Asn Lys Asp Val
865 870 875 880
Thr Leu Thr Ser Pro Leu Leu Val Asn Leu Leu Gln Ser Asp Ile Ser
885 890 895
Ala Gly His Phe Gly Val Asn Asn Lys Gln Asn Asn Thr Asn Ala Asn
900 905 910
Lys Pro Lys Lys Lys Lys Pro Pro Arg Lys Lys Lys Asn Ser Gln Gln
915 920 925
Asp Leu Asn Thr Pro Asp Thr Arg Pro Ala Gly Leu Glu Glu Ala Asp
930 935 940
Gln Pro Pro Leu Pro Gly Glu Gln Gly Ile Ser Leu Asp Asn Ser Gly
945 950 955 960

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Pro Lys Leu Pro Glu Phe Ser Asn Arg Pro Pro Gly Tyr Pro Ser Gln  
                             965                            970                            975  
 Pro Val Glu Gln Arg Pro Leu Gln Gln Met Pro Pro Gln Leu Met Gln  
                             980                            985                            990  
 His Val Ala Pro Pro Pro Gln Pro Pro Gln Gln Gln Pro Gln Pro Gln  
                             995                            1000                            1005  
 Leu Pro Gln Gln Gln Gln Pro Pro Pro Pro Ser Gln Pro Gln Ser Gln  
                             1010                            1015                            1020  
 Gln Gln Gln Gln Gln Gln Gln Met Met Met Met Leu Met Met Gln  
 1025                            1030                            1035                            1040  
 Gln Asp Pro Lys Ser Val Arg Leu Pro Val Ser Gln Asn Val His Pro  
                             1045                            1050                            1055  
 Pro Arg Gly Pro Leu Asn Pro Asp Ser Gln Arg Met Pro Met Gln Gln  
                             1060                            1065                            1070  
 Ser Gly Ser Val Pro Val Met Val Ser Leu Gln Gly Pro Ala Ser Val  
                             1075                            1080                            1085  
 Pro Pro Ser Pro Asp Lys Gln Arg Met Pro Met Pro Val Asn Thr Pro  
                             1090                            1095                            1100  
 Leu Gly Ser Asn Ser Arg Lys Met Val Tyr Gln Glu Ser Pro Gln Asn  
 1105                            1110                            1115                            1120  
 Pro Ser Ser Ser Pro Leu Ala Glu Met Ala Ser Leu Pro Glu Ala Ser  
                             1125                            1130                            1135  
 Gly Ser Glu Ala Pro Ser Val Pro Gly Gly Pro Asn Asn Met Pro Ser  
                             1140                            1145                            1150  
 His Val Val Leu Pro Gln Asn Gln Leu Met Met Thr Gly Pro Lys Pro  
                             1155                            1160                            1165  
 Gly Pro Ser Pro Leu Ser Ala Thr Gln Gly Ala Thr Pro Gln Gln Pro  
                             1170                            1175                            1180  
 Pro Val Asn Ser Leu Pro Ser Ser His Gly His His Phe Pro Asn Val  
 1185                            1190                            1195                            1200  
 Ala Ala Pro Thr Gln Thr Ser Arg Pro Lys Thr Pro Asn Arg Ala Ser  
                             1205                            1210                            1215  
 Pro Arg Pro Tyr Tyr Pro Gln Thr Pro Asn Asn Arg Pro Pro Ser Thr  
                             1220                            1225                            1230  
 Glu Pro Ser Glu Ile Ser Leu Ser Pro Glu Arg Leu Asn Ala Ser Ile  
                             1235                            1240                            1245  
 Ala Gly Leu Phe Pro Pro Gln Ile Asn Ile Pro Leu Pro Pro Arg Pro  
                             1250                            1255                            1260  
 Asn Leu Asn Arg Gly Phe Asp Gln Gln Gly Leu Asn Pro Thr Ile Leu  
 1265                            1270                            1275                            1280  
 Lys Ala Ile Gly Gln Ala Pro Ser Asn Leu Thr Met Asn Pro Ser Asn  
                             1285                            1290                            1295  
 Phe Ala Thr Pro Gln Thr His Lys Leu Asp Ser Val Val Val Asn Ser  
                             1300                            1305                            1310  
 Gly Lys Gln Ser Asn Ser Gly Ala Thr Lys Arg Ala Ser Pro Ser Asn  
                             1315                            1320                            1325  
 Ser Arg Arg Ser Ser Pro Gly Ser Ser Arg Lys Thr Thr Pro Ser Pro  
                             1330                            1335                            1340  
 Gly Arg Gln Asn Ser Lys Ala Pro Lys Leu Thr Leu Ala Ser Gln Thr  
 1345                            1350                            1355                            1360  
 Asn Ala Ala Leu Leu Gln Asn Val Glu Leu Pro Arg Asn Val Leu Val  
                             1365                            1370                            1375  
 Ser Pro Thr Pro Leu Ala Asn Pro Pro Val Pro Gly Ser Phe Pro Asn  
                             1380                            1385                            1390  
 Asn Ser Gly Leu Asn Pro Gln Asn Ser Thr Val Ser Val Ala Ala Val  
                             1395                            1400                            1405  
 Gly Gly Val Val Glu Asp Asn Lys Glu Ser Leu Asn Val Pro Gln Asp  
                             1410                            1415                            1420  
 Ser Asp Cys Gln Asn Ser Gln Ser Arg Lys Glu Gln Val Asn Ile Glu  
 1425                            1430                            1435                            1440  
 Leu Lys Ala Val Pro Ala Gln Glu Val Lys Met Val Val Pro Glu Asp  
                             1445                            1450                            1455  
 Gln Ser Lys Lys Asp Gly Gln Pro Ser Asp Pro Asn Lys Leu Pro Ser  
                             1460                            1465                            1470



Val Glu Glu Asn Lys Asn Leu Val Ser Pro Ala Met Arg Glu Ala Pro  
 1475 1480 1485  
 Thr Ser Leu Ser Gln Leu Leu Asp Asn Ser Gly Ala Pro Asn Val Thr  
 1490 1495 1500  
 Ile Lys Pro Pro Gly Leu Thr Asp Leu Glu Val Thr Pro Pro Val Val  
 1505 1510 1515 1520  
 Ser Gly Glu Asp Leu Lys Lys Ala Ser Val Ile Pro Thr Leu Gln Asp  
 1525 1530 1535  
 Leu Ser Ser Ser Lys Glu Pro Ser Asn Ser Leu Asn Leu Pro His Ser  
 1540 1545 1550  
 Asn Glu Leu Cys Ser Ser Leu Val His Pro Glu Leu Ser Glu Val Ser  
 1555 1560 1565  
 Ser Asn Val Ala Pro Ser Ile Pro Pro Val Met Ser Arg Pro Val Ser  
 1570 1575 1580  
 Ser Ser Ser Ile Ser Thr Pro Leu Pro Pro Asn Gln Ile Thr Val Phe  
 1585 1590 1595 1600  
 Val Thr Ser Asn Pro Ile Thr Thr Ser Ala Asn Thr Ser Ala Ala Leu  
 1605 1610 1615  
 Pro Thr His Leu Gln Ser Ala Leu Met Ser Thr Val Val Thr Met Pro  
 1620 1625 1630  
 Asn Ala Gly Ser Lys Val Met Val Ser Glu Gly Gln Ser Ala Ala Gln  
 1635 1640 1645  
 Ser Asn Ala Arg Pro Gln Phe Ile Thr Pro Val Phe Ile Asn Ser Ser  
 1650 1655 1660  
 Ser Ile Ile Gln Val Met Lys Gly Ser Gln Pro Ser Thr Ile Pro Ala  
 1665 1670 1675 1680  
 Ala Pro Leu Thr Thr Asn Ser Gly Leu Met Pro Pro Ser Val Ala Val  
 1685 1690 1695  
 Val Gly Pro Leu His Ile Pro Gln Asn Ile Lys Phe Ser Ser Ala Pro  
 1700 1705 1710  
 Val Pro Pro Asn Ala Leu Ser Ser Pro Ala Pro Asn Ile Gln Thr  
 1715 1720 1725  
 Gly Arg Pro Leu Val Leu Ser Ser Arg Ala Thr Pro Val Gln Leu Pro  
 1730 1735 1740  
 Ser Pro Pro Cys Thr Ser Ser Pro Val Val Pro Ser His Pro Pro Val  
 1745 1750 1755 1760  
 Gln Gln Val Lys Glu Leu Asn Pro Asp Glu Ala Ser Pro Gln Val Asn  
 1765 1770 1775  
 Thr Ser Ala Asp Gln Asn Thr Leu Pro Ser Ser Gln Ser Thr Thr Met  
 1780 1785 1790  
 Val Ser Pro Leu Leu Thr Asn Ser Pro Gly Ser Ser Gly Asn Arg Arg  
 1795 1800 1805  
 Ser Pro Val Ser Ser Ser Lys Gly Lys Gly Lys Val Asp Lys Ile Gly  
 1810 1815 1820  
 Gln Ile Leu Leu Thr Lys Ala Cys Lys Lys Val Thr Gly Ser Leu Glu  
 1825 1830 1835 1840  
 Lys Gly Glu Glu Gln Tyr Gly Ala Asp Gly Glu Thr Glu Gly Gln Gly  
 1845 1850 1855  
 Leu Asp Thr Thr Ala Pro Gly Leu Met Gly Thr Glu Gln Leu Ser Thr  
 1860 1865 1870  
 Glu Leu Asp Ser Lys Thr Pro Thr Pro Pro Ala Pro Thr Leu Leu Lys  
 1875 1880 1885  
 Met Thr Ser Ser Pro Val Gly Pro Gly Thr Ala Ser Ala Gly Pro Ser  
 1890 1895 1900  
 Leu Pro Gly Gly Ala Leu Pro Thr Ser Val Arg Ser Ile Val Thr Thr  
 1905 1910 1915 1920  
 Leu Val Pro Ser Glu Leu Ile Ser Ala Val Pro Thr Thr Lys Ser Asn  
 1925 1930 1935  
 His Gly Gly Ile Ala Ser Glu Ser Leu Ala Gly Gly Leu Val Glu Glu  
 1940 1945 1950  
 Lys Val Gly Ser His Pro Glu Leu Leu Pro Ser Ile Ala Pro Ser Gln  
 1955 1960 1965  
 Asn Leu Val Ser Lys Glu Thr Ser Thr Thr Ala Leu Gln Ala Ser Val  
 1970 1975 1980

Ala Arg Pro Glu Leu Glu Val Asn Ala Ala Ile Val Ser Gly Gln Ser  
 1985 1990 1995 2000  
 Ser Glu Pro Lys Glu Ile Val Glu Lys Ser Lys Ile Pro Gly Arg Arg  
 2005 2010 2015  
 Asn Ser Arg Thr Glu Glu Pro Thr Val Ala Ser Glu Ser Val Glu Asn  
 2020 2025 2030  
 Gly His Arg Lys Arg Ser Ser Arg Pro Ala Ser Ala Ser Ser Ser Thr  
 2035 2040 2045  
 Lys Asp Ile Thr Ser Ala Val Gln Ser Lys Arg Arg Lys Ser Lys \*  
 2050 2055 2060 2063

<210> 1373  
 <211> 659  
 <212> PRT  
 <213> Homo sapiens

<400> 1373  
 Met Arg Leu Lys Ile Gly Phe Ile Leu Arg Ser Leu Leu Val Val Gly  
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 Ser Phe Leu Gly Leu Val Val Leu Trp Ser Ser Leu Thr Pro Arg Pro  
 20 25 30  
 Asp Asp Pro Ser Pro Leu Ser Arg Met Arg Glu Asp Arg Asp Val Asn  
 35 40 45  
 Asp Pro Met Pro Asn Arg Gly Gly Asn Gly Leu Ala Pro Gly Glu Asp  
 50 55 60  
 Arg Phe Lys Pro Val Val Pro Trp Pro His Val Glu Gly Val Glu Val  
 65 70 75 80  
 Asp Leu Glu Ser Ile Arg Arg Ile Asn Lys Ala Lys Asn Glu Gln Glu  
 85 90 95  
 His His Ala Gly Gly Asp Ser Gln Lys Asp Ile Met Gln Arg Gln Tyr  
 100 105 110  
 Leu Thr Phe Lys Pro Gln Thr Phe Thr Tyr His Asp Pro Val Leu Arg  
 115 120 125  
 Pro Gly Ile Leu Gly Asn Phe Glu Pro Lys Glu Pro Glu Pro Pro Gly  
 130 135 140  
 Val Val Gly Gly Pro Gly Arg Glu Ser Gln Ala Ile Gly Phe Gly Ala  
 145 150 155 160  
 Gln Asn Leu Asn Lys Gln Phe Lys Pro Ala Phe Lys Glu Phe Gly Phe  
 165 170 175  
 Asn Met Val Ala Ser Asp Met Phe Ser Leu Asp Arg Asn Val Asn Asp  
 180 185 190  
 Leu Arg Gln Glu Glu Cys Lys Tyr Trp His Tyr Asp Glu Asn Leu Leu  
 195 200 205  
 Thr Ser Ser Val Val Ile Val Phe His Asn Glu Gly Trp Ser Thr Leu  
 210 215 220  
 Met Arg Thr Val His Ser Val Ile Lys Arg Thr Pro Arg Lys Tyr Leu  
 225 230 235 240  
 Ala Glu Ile Val Leu Ile Asp Asp Phe Ser Asn Lys Glu His Leu Lys  
 245 250 255  
 Glu Lys Leu Asp Glu Tyr Ile Lys Leu Trp Asn Gly Leu Val Lys Val  
 260 265 270  
 Phe Arg Asn Glu Arg Arg Glu Gly Leu Ile Gln Ala Arg Ser Ile Gly  
 275 280 285  
 Ala Gln Lys Ala Lys Leu Gly Gln Val Leu Ile Tyr Leu Asp Ala His  
 290 295 300  
 Cys Glu Val Ala Val Asn Trp Tyr Ala Pro Leu Val Ala Pro Ile Ser  
 305 310 315 320  
 Lys Asp Arg Thr Ile Cys Thr Val Pro Leu Ile Asp Val Ile Asn Gly  
 325 330 335  
 Asn Thr Tyr Glu Ile Ile Pro Gln Gly Gly Gly Asp Glu Asp Gly Tyr  
 340 345 350

Ala Arg Gly Ala Trp Asp Trp Ser Met Leu Trp Lys Arg Val Pro Leu  
 355 360 365  
 Thr Pro Gln Glu Lys Arg Leu Arg Lys Thr Lys Thr Glu Pro Tyr Arg  
 370 375 380  
 Ser Pro Ala Met Ala Gly Leu Cys Ala Ile Glu Arg Glu Phe Phe  
 385 390 395 400  
 Phe Glu Leu Gly Leu Tyr Asp Pro Gly Leu Gln Ile Trp Gly Gly Glu  
 405 410 415  
 Asn Phe Glu Ile Ser Tyr Lys Ile Trp Gln Cys Gly Gly Lys Leu Leu  
 420 425 430  
 Phe Val Pro Cys Ser Arg Val Gly His Ile Tyr Arg Leu Glu Gly Trp  
 435 440 445  
 Gln Gly Asn Pro Pro Pro Ile Tyr Val Gly Ser Ser Pro Thr Leu Lys  
 450 455 460  
 Asn Tyr Val Arg Val Val Glu Val Trp Trp Asp Glu Tyr Lys Asp Tyr  
 465 470 475 480  
 Phe Tyr Ala Ser Arg Pro Glu Ser Gln Ala Leu Pro Tyr Gly Asp Ile  
 485 490 495  
 Ser Glu Leu Lys Lys Phe Arg Glu Asp His Asn Cys Lys Ser Phe Lys  
 500 505 510  
 Trp Phe Met Glu Glu Ile Ala Tyr Asp Ile Thr Ser His Tyr Pro Leu  
 515 520 525  
 Pro Pro Lys Asn Val Asp Trp Gly Glu Ile Arg Gly Phe Glu Thr Ala  
 530 535 540  
 Tyr Cys Ile Asp Ser Met Gly Lys Thr Asn Gly Gly Phe Val Glu Leu  
 545 550 555 560  
 Gly Pro Cys His Arg Met Gly Gly Asn Gln Leu Phe Arg Ile Asn Glu  
 565 570 575  
 Ala Asn Gln Leu Met Gln Tyr Asp Gln Cys Leu Thr Lys Gly Ala Asp  
 580 585 590  
 Gly Ser Lys Val Met Ile Thr His Cys Asn Leu Asn Glu Phe Lys Glu  
 595 600 605  
 Trp Gln Tyr Phe Lys Asn Leu His Arg Phe Thr His Ile Pro Ser Gly  
 610 615 620  
 Lys Cys Leu Asp Arg Ser Glu Val Leu His Gln Val Phe Ile Ser Asn  
 625 630 635 640  
 Cys Asp Ser Ser Lys Thr Thr Gln Lys Trp Glu Met Asn Asn Ile His  
 645 650 655  
 Ser Val \*  
 658

&lt;210&gt; 1374

&lt;211&gt; 619

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1374

Met Gly Leu Val Ala Ile Ser Thr Val Ser Phe Ser Ile Ser Ala Phe  
 1 5 10 15  
 Ser Glu Thr Asp Thr Gln Ser Thr Gly Glu Ala Ser Val Val Ser Gly  
 20 25 30  
 Pro Arg Val Ala Gln Gly Tyr His Gln Arg Thr Leu Leu Asp Leu Asn  
 35 40 45  
 Asp Lys Ile Leu Asp Tyr Thr Pro Gln Pro Pro Leu Ser Lys Glu Gly  
 50 55 60  
 Glu Ser Glu Asn Ser Thr Asp His Ala Gln Gly Asp Tyr Pro Lys Asp  
 65 70 75 80  
 Ile Phe Ser Leu Glu Glu Arg Arg Lys Gly Ala Ile Ile Leu His Val  
 85 90 95  
 Ile Gly Met Ile Tyr Met Phe Ile Ala Leu Ala Ile Val Cys Asp Glu  
 100 105 110

Phe Phe Val Pro Ser Leu Thr Val Ile Thr Glu Lys Leu Gly Ile Ser  
 115 120 125  
 Asp Asp Val Ala Gly Ala Thr Phe Met Ala Ala Gly Gly Ser Ala Pro  
 130 135 140  
 Glu Leu Phe Thr Ser Leu Ile Gly Val Phe Ile Ala His Ser Asn Val  
 145 150 155 160  
 Gly Ile Gly Thr Ile Val Gly Ser Ala Val Phe Asn Ile Leu Phe Val  
 165 170 175  
 Ile Gly Met Cys Ala Leu Phe Ser Arg Glu Ile Leu Asn Leu Thr Trp  
 180 185 190  
 Trp Pro Leu Phe Arg Asp Val Ser Phe Tyr Ile Val Asp Leu Ile Met  
 195 200 205  
 Leu Ile Ile Phe Phe Leu Asp Asn Val Ile Met Trp Trp Glu Ser Leu  
 210 215 220  
 Leu Leu Leu Thr Ala Tyr Phe Cys Tyr Val Val Phe Met Lys Phe Asn  
 225 230 235 240  
 Val Gln Val Glu Lys Trp Val Lys Gln Met Ile Asn Arg Asn Lys Val  
 245 250 255  
 Val Lys Val Thr Ala Pro Glu Ala Gln Ala Lys Pro Ser Ala Ala Arg  
 260 265 270  
 Asp Lys Asp Glu Pro Thr Leu Pro Ala Lys Pro Arg Leu Gln Arg Gly  
 275 280 285  
 Gly Ser Ser Ala Ser Leu His Asn Ser Leu Met Arg Asn Ser Ile Phe  
 290 295 300  
 Gln Leu Met Ile His Thr Leu Asp Pro Leu Ala Glu Glu Leu Gly Ser  
 305 310 315 320  
 Tyr Gly Lys Leu Lys Tyr Tyr Asp Thr Met Thr Glu Glu Gly Arg Phe  
 325 330 335  
 Arg Glu Lys Ala Ser Ile Leu His Lys Ile Ala Lys Lys Lys Cys His  
 340 345 350  
 Val Asp Glu Asn Glu Arg Gln Asn Gly Ala Ala Asn His Val Glu Lys  
 355 360 365  
 Ile Glu Leu Pro Asn Ser Thr Ser Thr Asp Val Glu Met Thr Pro Ser  
 370 375 380  
 Ser Asp Ala Ser Glu Pro Val Gln Asn Gly Asn Leu Ser His Asn Ile  
 385 390 395 400  
 Glu Gly Ala Glu Ala Gln Thr Ala Asp Glu Glu Glu Asp Gln Pro Leu  
 405 410 415  
 Ser Leu Ala Trp Pro Ser Glu Thr Arg Lys Gln Val Thr Phe Leu Ile  
 420 425 430  
 Val Phe Pro Ile Val Phe Pro Leu Trp Ile Thr Leu Pro Asp Val Arg  
 435 440 445  
 Lys Pro Ser Ser Arg Lys Phe Phe Pro Ile Thr Phe Phe Gly Ser Ile  
 450 455 460  
 Thr Trp Ile Ala Val Phe Ser Tyr Leu Met Val Trp Trp Ala His Gln  
 465 470 475 480  
 Val Gly Glu Thr Ile Gly Ile Ser Glu Glu Ile Met Gly Leu Thr Ile  
 485 490 495  
 Leu Ala Ala Gly Thr Ser Ile Pro Asp Leu Ile Thr Ser Val Ile Val  
 500 505 510  
 Ala Arg Lys Gly Leu Gly Asp Met Ala Val Ser Ser Ser Val Gly Ser  
 515 520 525  
 Asn Ile Phe Asp Ile Thr Val Gly Leu Pro Leu Pro Trp Leu Leu Tyr  
 530 535 540  
 Thr Val Ile His Arg Phe Gln Pro Val Ala Val Ser Ser Asn Gly Leu  
 545 550 555 560  
 Phe Cys Ala Ile Val Leu Leu Phe Ile Met Leu Leu Phe Val Ile Leu  
 565 570 575  
 Ser Ile Ala Leu Cys Lys Trp Arg Met Asn Lys Ile Leu Gly Phe Ile  
 580 585 590  
 Met Phe Gly Leu Tyr Phe Val Phe Leu Val Val Ser Val Leu Leu Glu  
 595 600 605  
 Asp Arg Ile Leu Thr Cys Pro Val Ser Ile \*  
 610 615 618

<210> 1375  
 <211> 1745  
 <212> PRT  
 <213> Homo sapiens

<400> 1375  
 Met Val Ile Asp Pro Leu His Val Thr Leu Thr Pro Lys Lys Leu Lys  
 1 5 10 15  
 Thr Gly Ile Gly Ser Thr Val Ile Leu Ser Cys Ala Leu Thr Gly Ser  
 20 25 30  
 Pro Glu Phe Thr Ile Arg Trp Tyr Arg Asn Thr Glu Leu Val Leu Pro  
 35 40 45  
 Asp Glu Ala Ile Ser Ile Arg Gly Leu Ser Asn Glu Thr Leu Leu Ile  
 50 55 60  
 Thr Ser Ala Gln Lys Ser His Ser Gly Ala Tyr Gln Cys Phe Ala Thr  
 65 70 75 80  
 Arg Lys Ala Gln Thr Ala Gln Asp Phe Ala Ile Ile Ala Leu Glu Asp  
 85 90 95  
 Gly Thr Pro Arg Ile Val Ser Ser Phe Ser Glu Lys Val Val Asn Pro  
 100 105 110  
 Gly Glu Gln Phe Ser Leu Met Cys Ala Ala Lys Gly Ala Pro Pro Pro  
 115 120 125  
 Thr Val Thr Trp Ala Leu Asp Asp Glu Pro Ile Val Arg Asp Gly Ser  
 130 135 140  
 His Arg Thr Asn Gln Tyr Thr Met Ser Asp Gly Thr Thr Ile Ser His  
 145 150 155 160  
 Met Asn Val Thr Gly Pro Gln Ile Arg Asp Gly Gly Val Tyr Arg Cys  
 165 170 175  
 Thr Ala Arg Asn Leu Val Gly Ser Ala Glu Tyr Gln Ala Arg Ile Asn  
 180 185 190  
 Val Arg Gly Pro Pro Ser Ile Arg Ala Met Arg Asn Ile Thr Ala Val  
 195 200 205  
 Ala Gly Arg Asp Thr Leu Ile Asn Cys Arg Val Ile Gly Tyr Pro Tyr  
 210 215 220  
 Tyr Ser Ile Lys Trp Tyr Lys Asp Ala Leu Leu Leu Pro Asp Asn His  
 225 230 235 240  
 Arg Gln Val Val Phe Glu Asn Gly Thr Leu Lys Leu Thr Asp Val Gln  
 245 250 255  
 Lys Gly Met Asp Glu Gly Glu Tyr Leu Cys Ser Val Leu Ile Gln Pro  
 260 265 270  
 Gln Leu Ser Ile Ser Gln Ser Val His Val Ala Val Lys Val Pro Pro  
 275 280 285  
 Leu Ile Gln Pro Phe Glu Phe Pro Pro Ala Ser Ile Gly Gln Leu Leu  
 290 295 300  
 Tyr Ile Pro Cys Val Val Ser Ser Gly Asp Met Pro Ile Arg Ile Thr  
 305 310 315 320  
 Trp Arg Lys Asp Gly Gln Val Ile Ile Ser Gly Ser Gly Val Thr Ile  
 325 330 335  
 Glu Ser Lys Glu Phe Met Ser Ser Leu Gln Ile Ser Ser Val Ser Leu  
 340 345 350  
 Lys His Asn Gly Asn Tyr Thr Cys Ile Ala Ser Asn Ala Ala Ala Thr  
 355 360 365  
 Val Ser Arg Glu Arg Gln Leu Ile Val Arg Val Pro Pro Arg Phe Val  
 370 375 380  
 Val Gln Pro Asn Asn Gln Asp Gly Ile Tyr Gly Lys Ala Gly Val Leu  
 385 390 395 400  
 Asn Cys Ser Val Asp Gly Tyr Pro Pro Pro Lys Val Met Trp Lys His  
 405 410 415  
 Ala Lys Gly Ser Gly Asn Pro Gln Gln Tyr His Pro Val Pro Leu Thr  
 420 425 430

Gly	Arg	Ile	Gln	Ile	Leu	Pro	Asn	Ser	Ser	Leu	Leu	Ile	Arg	His	Val
		435					440					445			
Leu	Glu	Asp	Ile	Gly	Tyr	Leu	Cys	Gln	Ala	Ser	Asn	Gly	Val		
	450				455				460						
Gly	Thr	Asp	Ile	Ser	Lys	Ser	Met	Phe	Leu	Thr	Val	Lys	Ile	Pro	Ala
	465				470				475					480	
Met	Ile	Thr	Ser	His	Pro	Asn	Thr	Thr	Ile	Ala	Ile	Lys	Gly	His	Ala
				485					490					495	
Lys	Glu	Leu	Asn	Cys	Thr	Ala	Arg	Gly	Glu	Arg	Pro	Ile	Ile	Ile	Arg
		500						505				510			
Trp	Glu	Lys	Gly	Asp	Thr	Val	Ile	Asp	Pro	Asp	Arg	Val	Met	Arg	Tyr
	515						520					525			
Ala	Ile	Ala	Thr	Lys	Asp	Asn	Gly	Asp	Glu	Val	Val	Ser	Thr	Leu	Lys
	530					535					540				
Leu	Lys	Pro	Ala	Asp	Arg	Gly	Asp	Ser	Val	Phe	Phe	Ser	Cys	His	Ala
	545				550					555					560
Ile	Asn	Ser	Tyr	Gly	Glu	Asp	Arg	Gly	Leu	Ile	Gln	Leu	Thr	Val	Gln
				565					570					575	
Glu	Pro	Pro	Asp	Pro	Pro	Glu	Leu	Glu	Ile	Arg	Glu	Val	Lys	Ala	Arg
			580					585					590		
Ser	Met	Asn	Leu	Arg	Trp	Thr	Gln	Arg	Phe	Asp	Gly	Asn	Ser	Ile	Ile
	595						600					605			
Thr	Gly	Phe	Asp	Ile	Glu	Tyr	Lys	Asn	Lys	Ser	Asp	Ser	Trp	Asp	Phe
	610					615					620				
Lys	Gln	Ser	Thr	Arg	Asn	Ile	Ser	Pro	Thr	Ile	Asn	Gln	Ala	Asn	Ile
	625				630					635					640
Val	Asp	Leu	His	Pro	Ala	Ser	Val	Tyr	Ser	Ile	Arg	Met	Tyr	Ser	Phe
				645					650					655	
Asn	Lys	Ile	Gly	Arg	Ser	Glu	Pro	Ser	Lys	Glu	Leu	Thr	Ile	Ser	Thr
		660						665					670		
Glu	Glu	Ala	Pro	Asp	Gly	Pro	Pro	Met	Asp	Val	Thr	Leu	Gln	Pro	
	675					680					685				
Val	Thr	Ser	Gln	Ser	Ile	Gln	Val	Thr	Trp	Lys	Ala	Pro	Lys	Lys	Glu
	690					695					700				
Leu	Gln	Asn	Gly	Val	Ile	Arg	Gly	Tyr	Gln	Ile	Gly	Tyr	Arg	Glu	Asn
	705				710					715					720
Ser	Pro	Gly	Ser	Asn	Gly	Gln	Tyr	Ser	Ile	Val	Glu	Met	Lys	Ala	Thr
				725					730					735	
Gly	Asp	Ser	Glu	Val	Tyr	Thr	Leu	Asp	Asn	Leu	Lys	Lys	Phe	Ala	Gln
		740						745					750		
Tyr	Gly	Val	Val	Val	Gln	Ala	Phe	Asn	Arg	Ala	Gly	Thr	Gly	Pro	Ser
	755					760						765			
Ser	Ser	Glu	Ile	Asn	Ala	Thr	Thr	Leu	Glu	Asp	Val	Pro	Ser	Gln	Pro
	770					775					780				
Pro	Glu	Asn	Val	Arg	Ala	Leu	Ser	Ile	Thr	Ser	Asp	Val	Ala	Val	Ile
	785				790					795					800
Ser	Trp	Ser	Glu	Pro	Pro	Arg	Ser	Thr	Leu	Asn	Gly	Val	Leu	Lys	Gly
				805					810					815	
Tyr	Arg	Val	Ile	Phe	Trp	Ser	Leu	Tyr	Val	Asp	Gly	Glu	Trp	Gly	Glu
		820						825					830		
Met	Gln	Asn	Ile	Thr	Thr	Thr	Arg	Glu	Arg	Val	Glu	Leu	Arg	Gly	Met
		835					840					845			
Glu	Lys	Phe	Thr	Asn	Tyr	Ser	Val	Gln	Val	Leu	Ala	Tyr	Thr	Gln	Ala
	850					855					860				
Gly	Asp	Gly	Val	Arg	Ser	Ser	Val	Leu	Tyr	Ile	Gln	Thr	Lys	Glu	Asp
	865				870					875					880
Val	Pro	Gly	Pro	Pro	Ala	Gly	Ile	Lys	Ala	Val	Pro	Ser	Ser	Ala	Ser
				885					890					895	
Ser	Val	Val	Val	Ser	Trp	Leu	Pro	Pro	Thr	Lys	Pro	Asn	Gly	Val	Ile
		900						905					910		
Arg	Lys	Tyr	Thr	Ile	Phe	Cys	Ser	Ser	Pro	Gly	Ser	Gly	Gln	Pro	Ala
		915					920					925			
Pro	Ser	Glu	Tyr	Glu	Thr	Ser	Pro	Glu	Gln	Leu	Phe	Tyr	Arg	Ile	Ala
	930					935						940			

His Leu Asn Arg Gly Gln Gln Tyr Leu Leu Trp Val Ala Ala Val Thr  
 945 950 955 960  
 Ser Ala Gly Arg Gly Asn Ser Ser Glu Lys Val Thr Ile Glu Pro Ala  
 965 970 975  
 Gly Lys Ala Pro Ala Lys Ile Ile Ser Phe Gly Gly Thr Val Thr Thr  
 980 985 990  
 Pro Trp Met Lys Asp Val Arg Leu Pro Cys Asn Ser Val Gly Asp Pro  
 995 1000 1005  
 Ala Pro Ala Val Lys Trp Thr Lys Asp Ser Glu Asp Ser Ala Ile Pro  
 1010 1015 1020  
 Val Ser Met Asp Gly His Arg Leu Ile His Thr Asn Gly Thr Leu Leu  
 1025 1030 1035 1040  
 Leu Arg Ala Val Lys Ala Glu Asp Ser Gly Tyr Tyr Thr Cys Thr Ala  
 1045 1050 1055  
 Thr Asn Thr Gly Gly Phe Asp Thr Ile Ile Val Asn Leu Leu Val Gln  
 1060 1065 1070  
 Val Pro Pro Asp Gln Pro Arg Leu Thr Val Ser Lys Thr Ser Ala Ser  
 1075 1080 1085  
 Ser Ile Thr Leu Thr Trp Ile Pro Gly Asp Asn Gly Gly Ser Ser Ile  
 1090 1095 1100  
 Arg Gly Phe Val Leu Gln Tyr Ser Val Asp Asn Ser Glu Glu Trp Lys  
 1105 1110 1115 1120  
 Asp Val Phe Ile Ser Ser Ser Glu Arg Ser Phe Lys Leu Asp Ser Leu  
 1125 1130 1135  
 Lys Cys Gly Thr Trp Tyr Lys Val Lys Leu Ala Ala Lys Asn Ser Val  
 1140 1145 1150  
 Gly Ser Gly Arg Ile Ser Glu Ile Ile Glu Ala Lys Thr His Gly Arg  
 1155 1160 1165  
 Glu Pro Ser Phe Ser Lys Asp Gln His Leu Phe Thr His Ile Asn Ser  
 1170 1175 1180  
 Thr His Ala Arg Leu Asn Leu Gln Gly Trp Asn Asn Gly Gly Cys Pro  
 1185 1190 1195 1200  
 Ile Thr Ala Ile Val Leu Glu Tyr Arg Pro Lys Gly Thr Trp Ala Trp  
 1205 1210 1215  
 Gln Gly Leu Arg Ala Asn Ser Ser Gly Glu Val Phe Leu Thr Glu Leu  
 1220 1225 1230  
 Arg Glu Ala Thr Trp Tyr Glu Leu Arg Met Arg Ala Cys Asn Ser Ala  
 1235 1240 1245  
 Gly Cys Gly Asn Glu Thr Ala Gln Phe Ala Thr Leu Asp Tyr Asp Gly  
 1250 1255 1260  
 Ser Thr Ile Pro Pro Ile Lys Ser Ala Gln Gly Glu Gly Asp Asp Val  
 1265 1270 1275 1280  
 Lys Lys Leu Phe Thr Ile Gly Cys Pro Val Ile Leu Ala Thr Leu Gly  
 1285 1290 1295  
 Val Ala Leu Leu Phe Ile Val Arg Lys Lys Arg Lys Glu Lys Arg Leu  
 1300 1305 1310  
 Lys Arg Leu Arg Asp Ala Lys Ser Leu Ala Glu Met Leu Ile Ser Lys  
 1315 1320 1325  
 Asn Asn Arg Ser Phe Asp Thr Pro Val Lys Gly Pro Pro Gln Gly Pro  
 1330 1335 1340  
 Arg Leu His Ile Asp Ile Pro Arg Val Gln Leu Leu Ile Glu Asp Lys  
 1345 1350 1355 1360  
 Glu Gly Ile Lys Gln Leu Gly Asp Asp Lys Ala Thr Ile Pro Val Thr  
 1365 1370 1375  
 Asp Ala Glu Phe Ser Gln Ala Val Asn Pro Gln Ser Phe Cys Thr Gly  
 1380 1385 1390  
 Val Ser Leu His His Pro Thr Leu Ile Gln Ser Thr Gly Pro Leu Ile  
 1395 1400 1405  
 Asp Met Ser Asp Ile Arg Pro Gly Thr Asn Pro Val Ser Arg Lys Asn  
 1410 1415 1420  
 Val Lys Ser Ala His Ser Thr Arg Asn Arg Tyr Ser Ser Gln Trp Thr  
 1425 1430 1435 1440  
 Leu Thr Lys Cys Gln Ala Ser Thr Pro Ala Arg Thr Leu Thr Ser Asp  
 1445 1450 1455

Trp Arg Thr Val Gly Ser Gln His Gly Val Thr Val Thr Glu Ser Asp  
 1460 1465 1470  
 Ser Tyr Ser Ala Ser Leu Ser Gln Asp Thr Asp Lys Gly Arg Asn Ser  
 1475 1480 1485  
 Met Val Ser Thr Glu Ser Ala Ser Ser Thr Tyr Glu Glu Leu Ala Arg  
 1490 1495 1500  
 Ala Tyr Glu His Ala Lys Leu Glu Glu Gln Leu Gln His Ala Lys Phe  
 1505 1510 1515 1520  
 Glu Ile Thr Glu Cys Phe Ile Ser Asp Ser Ser Ser Asp Gln Met Thr  
 1525 1530 1535  
 Thr Gly Thr Asn Glu Asn Ala Asp Ser Met Thr Ser Met Ser Thr Pro  
 1540 1545 1550  
 Ser Glu Pro Gly Ile Cys Arg Phe Thr Ala Ser Pro Pro Lys Pro Gln  
 1555 1560 1565  
 Asp Ala Asp Arg Gly Lys Asn Val Ala Val Pro Ile Pro His Arg Ala  
 1570 1575 1580  
 Asn Lys Ser Asp Tyr Cys Asn Leu Pro Leu Tyr Ala Lys Ser Glu Ala  
 1585 1590 1595 1600  
 Phe Phe Arg Lys Ala Asp Gly Arg Glu Pro Cys Pro Val Val Pro Pro  
 1605 1610 1615  
 Arg Glu Ala Ser Ile Arg Asn Leu Ala Arg Thr Tyr His Thr Gln Ala  
 1620 1625 1630  
 Arg His Leu Thr Leu Asp Pro Ala Ser Lys Ser Leu Gly Leu Pro His  
 1635 1640 1645  
 Pro Gly Ala Pro Ala Ala Ala Ser Thr Ala Thr Leu Pro Gln Arg Thr  
 1650 1655 1660  
 Leu Ala Met Pro Ala Pro Pro Ala Gly Thr Ala Pro Pro Ala Pro Gly  
 1665 1670 1675 1680  
 Pro Thr Pro Ala Glu Pro Pro Thr Ala Pro Ser Ala Ala Pro Pro Ala  
 1685 1690 1695  
 Pro Ser Thr Glu Pro Pro Arg Ala Gly Gly Pro His Thr Lys Met Gly  
 1700 1705 1710  
 Gly Ser Arg Asp Ser Leu Leu Glu Met Ser Thr Ser Gly Val Gly Arg  
 1715 1720 1725  
 Ser Gln Lys Gln Gly Ala Gly Ala Tyr Ser Lys Ser Tyr Thr Leu Val  
 1730 1735 1740 1744  
 \*

<210> 1376  
 <211> 938  
 <212> PRT  
 <213> Homo sapiens

<400> 1376  
 Met Arg Arg Arg Ser Gly Thr Leu Val Ile Asp Phe Arg Ser Gly Gly  
 1 5 10 15  
 Arg Pro Glu Glu Tyr Glu Gly Glu Tyr Gln Cys Phe Ala Arg Asn Lys  
 20 25 30  
 Phe Gly Thr Ala Leu Ser Asn Arg Ile Arg Leu Gln Val Ser Lys Ser  
 35 40 45  
 Pro Leu Trp Pro Lys Glu Asn Leu Asp Pro Val Val Val Gln Glu Gly  
 50 55 60  
 Ala Pro Leu Thr Leu Gln Cys Asn Pro Pro Pro Gly Leu Pro Ser Pro  
 65 70 75 80  
 Val Ile Phe Trp Met Ser Ser Ser Met Glu Pro Ile Thr Gln Asp Lys  
 85 90 95  
 Arg Val Ser Gln Gly His Asn Gly Asp Leu Tyr Phe Ser Asn Val Met  
 100 105 110  
 Leu Gln Asp Met Gln Thr Asp Tyr Ser Cys Asn Ala Arg Phe His Phe  
 115 120 125



Thr	His	Thr	Ile	Gln	Gln	Lys	Asn	Pro	Phe	Thr	Leu	Lys	Val	Leu	Thr
130						135					140				
Thr	Arg	Gly	Val	Ala	Glu	Arg	Thr	Pro	Ser	Phe	Met	Tyr	Pro	Gln	Gly
145					150					155					160
Thr	Ala	Ser	Ser	Gln	Met	Val	Leu	Arg	Gly	Met	Asp	Leu	Leu	Leu	Glu
				165					170						175
Cys	Ile	Ala	Ser	Gly	Val	Pro	Thr	Pro	Asp	Ile	Ala	Trp	Tyr	Lys	Lys
			180						185				190		
Gly	Gly	Asp	Leu	Pro	Ser	Asp	Lys	Ala	Lys	Phe	Glu	Asn	Phe	Asn	Lys
		195					200					205			
Ala	Leu	Arg	Ile	Thr	Asn	Val	Ser	Glu	Glu	Asp	Ser	Gly	Glu	Tyr	Phe
210						215					220				
Cys	Leu	Ala	Ser	Asn	Lys	Met	Gly	Ser	Ile	Arg	His	Thr	Ile	Ser	Val
225					230					235					240
Arg	Val	Lys	Ala	Ala	Pro	Tyr	Trp	Leu	Asp	Glu	Pro	Lys	Asn	Leu	Ile
			245						250						255
Leu	Ala	Pro	Gly	Glu	Asp	Gly	Arg	Leu	Val	Cys	Arg	Ala	Asn	Gly	Asn
			260					265						270	
Pro	Lys	Pro	Thr	Val	Gln	Trp	Met	Val	Asn	Gly	Glu	Pro	Leu	Gln	Ser
			275				280						285		
Ala	Pro	Pro	Asn	Pro	Asn	Arg	Glu	Val	Ala	Gly	Asp	Thr	Ile	Ile	Phe
290					295						300				
Arg	Asp	Thr	Gln	Ile	Ser	Ser	Arg	Ala	Val	Tyr	Gln	Cys	Asn	Thr	Ser
305					310					315					320
Asn	Glu	His	Gly	Tyr	Leu	Leu	Ala	Asn	Ala	Phe	Val	Ser	Val	Leu	Asp
			325						330					335	
Val	Pro	Pro	Arg	Met	Leu	Ser	Pro	Arg	Asn	Gln	Leu	Ile	Arg	Val	Ile
			340					345					350		
Leu	Tyr	Asn	Arg	Thr	Arg	Leu	Asp	Cys	Pro	Phe	Phe	Gly	Ser	Pro	Ile
		355					360					365			
Pro	Thr	Leu	Arg	Trp	Phe	Lys	Asn	Gly	Gln	Gly	Ser	Asn	Leu	Asp	Gly
370						375					380				
Gly	Asn	Tyr	His	Val	Tyr	Glu	Asn	Gly	Ser	Leu	Glu	Ile	Lys	Met	Ile
385					390					395					400
Arg	Lys	Glu	Asp	Gln	Gly	Ile	Tyr	Thr	Cys	Val	Ala	Thr	Asn	Ile	Leu
			405						410					415	
Gly	Lys	Ala	Glu	Asn	Gln	Val	Arg	Leu	Glu	Val	Lys	Asp	Pro	Thr	Arg
			420					425					430		
Ile	Tyr	Arg	Met	Pro	Glu	Asp	Gln	Val	Ala	Arg	Arg	Gly	Thr	Thr	Val
		435					440					445			
Gln	Leu	Glu	Cys	Arg	Val	Lys	His	Asp	Pro	Ser	Leu	Lys	Leu	Thr	Val
450						455					460				
Ser	Trp	Leu	Lys	Asp	Asp	Glu	Pro	Leu	Tyr	Ile	Gly	Asn	Arg	Met	Lys
465					470					475					480
Lys	Glu	Asp	Asp	Phe	Val	Thr	Ile	Phe	Gly	Val	Ala	Glu	Arg	Asp	Gln
			485						490					495	
Gly	Ser	Tyr	Thr	Cys	Val	Ala	Ser	Thr	Glu	Leu	Asp	Gln	Asp	Leu	Ala
			500					505					510		
Lys	Ala	Tyr	Leu	Thr	Val	Leu	Gly	Arg	Pro	Asp	Arg	Pro	Arg	Asp	Leu
		515					520					525			
Glu	Leu	Thr	Asp	Leu	Ala	Glu	Arg	Ser	Val	Arg	Leu	Thr	Trp	Ile	Pro
530						535					540				
Gly	Asp	Ala	Asn	Asn	Ser	Pro	Ile	Thr	Asp	Tyr	Val	Val	Gln	Phe	Glu
545					550					555					560
Glu	Asp	Gln	Phe	Gln	Pro	Gly	Val	Trp	His	Asp	His	Ser	Lys	Tyr	Pro
			565						570					575	
Gly	Ser	Val	Asn	Ser	Ala	Val	Leu	Arg	Leu	Ser	Pro	Tyr	Val	Asn	Tyr
			580					585					590		
Gln	Phe	Arg	Val	Ile	Ala	Ile	Asn	Glu	Val	Gly	Ser	Ser	His	Pro	Ser
		595					600					605			
Leu	Pro	Ser	Glu	Arg	Tyr	Arg	Thr	Ser	Gly	Ala	Pro	Pro	Glu	Ser	Asn
610						615					620				
Pro	Gly	Asp	Val	Lys	Gly	Glu	Gly	Thr	Arg	Lys	Asn	Asn	Met	Glu	Ile
625					630					635					640

Thr Trp Thr Pro Met Asn Ala Thr Ser Ala Phe Gly Pro Asn Leu Arg  
 645 650 655  
 Tyr Ile Val Lys Trp Arg Arg Arg Glu Thr Arg Glu Ala Trp Asn Asn  
 660 665 670  
 Val Thr Val Trp Gly Ser Arg Tyr Val Val Gly Gln Thr Pro Val Tyr  
 675 680 685  
 Val Pro Tyr Glu Ile Arg Val Gln Ala Glu Asn Asp Phe Gly Lys Gly  
 690 695 700  
 Pro Glu Pro Glu Ser Val Ile Gly Tyr Ser Gly Glu Asp Tyr Pro Arg  
 705 710 715 720  
 Ala Ala Pro Thr Glu Val Lys Val Arg Val Met Asn Ser Thr Ala Ile  
 725 730 735  
 Ser Leu Gln Trp Asn Arg Val Tyr Ser Asp Thr Val Gln Gly Gln Leu  
 740 745 750  
 Arg Glu Tyr Arg Ala Tyr Tyr Trp Arg Glu Ser Ser Leu Leu Lys Asn  
 755 760 765  
 Leu Trp Val Ser Gln Lys Arg Gln Gln Ala Ser Phe Pro Gly Asp Arg  
 770 775 780  
 Leu Arg Gly Val Val Ser Arg Leu Phe Pro Tyr Ser Asn Tyr Lys Leu  
 785 790 795 800  
 Glu Met Val Val Val Asn Gly Arg Gly Asp Gly Pro Arg Ser Glu Thr  
 805 810 815  
 Lys Glu Phe Thr Thr Pro Glu Gly Val Pro Ser Ala Pro Arg Arg Phe  
 820 825 830  
 Arg Val Arg Gln Pro Asn Leu Glu Thr Ile Asn Leu Glu Trp Asp His  
 835 840 845  
 Pro Glu His Pro Asn Gly Ile Met Ile Gly Tyr Thr Leu Lys Tyr Val  
 850 855 860  
 Ala Phe Asn Gly Thr Lys Val Gly Lys Gln Ile Val Glu Asn Phe Ser  
 865 870 875 880  
 Pro Asn Gln Thr Lys Phe Thr Val Gln Arg Thr Asp Pro Val Ser Arg  
 885 890 895  
 Tyr Arg Phe Thr Leu Ser Ala Arg Thr Gln Val Gly Ser Gly Glu Ala  
 900 905 910  
 Val Thr Glu Glu Ser Pro Ala Pro Pro Asn Glu Gly Arg Cys Met Ala  
 915 920 925  
 Ala Ala Pro Gly Val Lys Gly Pro Ser \*  
 930 935 937

&lt;210&gt; 1377

&lt;211&gt; 953

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1377

Met Arg Arg Arg Ser Gly Thr Leu Val Ile Asp Phe Arg Ser Gly Gly  
 1 5 10 15  
 Arg Pro Glu Glu Tyr Glu Gly Glu Tyr Gln Cys Phe Ala Arg Asn Lys  
 20 25 30  
 Phe Gly Thr Ala Leu Ser Asn Arg Ile Arg Leu Gln Val Ser Lys Ser  
 35 40 45  
 Pro Leu Trp Pro Lys Glu Asn Leu Asp Pro Val Val Val Gln Glu Gly  
 50 55 60  
 Ala Pro Leu Thr Leu Gln Cys Asn Pro Pro Pro Gly Leu Pro Ser Pro  
 65 70 75 80  
 Val Ile Phe Trp Met Ser Ser Ser Met Glu Pro Ile Thr Gln Asp Lys  
 85 90 95  
 Arg Val Ser Gln Gly His Asn Gly Asp Leu Tyr Phe Ser Asn Val Met  
 100 105 110  
 Leu Gln Asp Met Gln Thr Asp Tyr Ser Cys Asn Ala Arg Phe His Phe  
 115 120 125

Thr	His	Thr	Ile	Gln	Gln	Lys	Asn	Pro	Phe	Thr	Leu	Lys	Val	Leu	Thr
130						135					140				
Thr	Arg	Gly	Val	Ala	Glu	Arg	Thr	Pro	Ser	Phe	Met	Tyr	Pro	Gln	Gly
145					150					155					160
Thr	Ala	Ser	Ser	Gln	Met	Val	Leu	Arg	Gly	Met	Asp	Leu	Leu	Leu	Glu
				165					170					175	
Cys	Ile	Ala	Ser	Gly	Val	Pro	Thr	Pro	Asp	Ile	Ala	Trp	Tyr	Lys	Lys
			180					185					190		
Gly	Gly	Asp	Leu	Pro	Ser	Asp	Lys	Ala	Lys	Phe	Glu	Asn	Phe	Asn	Lys
		195				200					205				
Ala	Leu	Arg	Ile	Thr	Asn	Val	Ser	Glu	Glu	Asp	Ser	Gly	Glu	Tyr	Phe
210					215						220				
Cys	Leu	Ala	Ser	Asn	Lys	Met	Gly	Ser	Ile	Arg	His	Thr	Ile	Ser	Val
225				230						235					240
Arg	Val	Lys	Ala	Ala	Pro	Tyr	Trp	Leu	Asp	Glu	Pro	Lys	Asn	Leu	Ile
			245					250						255	
Leu	Ala	Pro	Gly	Glu	Asp	Gly	Arg	Leu	Val	Cys	Arg	Ala	Asn	Gly	Asn
			260					265					270		
Pro	Lys	Pro	Thr	Val	Gln	Trp	Met	Val	Asn	Gly	Glu	Pro	Leu	Gln	Ser
		275				280						285			
Ala	Pro	Pro	Asn	Pro	Asn	Arg	Glu	Val	Ala	Gly	Asp	Thr	Ile	Ile	Phe
290					295						300				
Arg	Asp	Thr	Gln	Ile	Ser	Ser	Arg	Ala	Val	Tyr	Gln	Cys	Asn	Thr	Ser
305				310						315					320
Asn	Glu	His	Gly	Tyr	Leu	Leu	Ala	Asn	Ala	Phe	Val	Ser	Val	Leu	Asp
			325					330						335	
Val	Pro	Pro	Arg	Met	Leu	Ser	Pro	Arg	Asn	Gln	Leu	Ile	Arg	Val	Ile
			340					345					350		
Leu	Tyr	Asn	Arg	Thr	Arg	Leu	Asp	Cys	Pro	Phe	Phe	Gly	Ser	Pro	Ile
		355				360						365			
Pro	Thr	Leu	Arg	Trp	Phe	Lys	Asn	Gly	Gln	Gly	Ser	Asn	Leu	Asp	Gly
370					375						380				
Gly	Asn	Tyr	His	Val	Tyr	Glu	Asn	Gly	Ser	Leu	Glu	Ile	Lys	Met	Ile
385				390						395					400
Arg	Lys	Glu	Asp	Gln	Gly	Ile	Tyr	Thr	Cys	Val	Ala	Thr	Asn	Ile	Leu
			405					410						415	
Gly	Lys	Ala	Glu	Asn	Gln	Val	Arg	Leu	Glu	Val	Lys	Asp	Pro	Thr	Arg
			420					425					430		
Ile	Tyr	Arg	Met	Pro	Glu	Asp	Gln	Val	Ala	Arg	Arg	Gly	Thr	Thr	Val
		435				440						445			
Gln	Leu	Glu	Cys	Arg	Val	Lys	His	Asp	Pro	Ser	Leu	Lys	Leu	Thr	Val
450					455						460				
Ser	Trp	Leu	Lys	Asp	Asp	Glu	Pro	Leu	Tyr	Ile	Gly	Asn	Arg	Met	Lys
465				470						475					480
Lys	Glu	Asp	Asp	Phe	Val	Thr	Ile	Phe	Gly	Val	Ala	Glu	Arg	Asp	Gln
			485					490						495	
Gly	Ser	Tyr	Thr	Cys	Val	Ala	Ser	Thr	Glu	Leu	Asp	Gln	Asp	Leu	Ala
			500					505					510		
Lys	Ala	Tyr	Leu	Thr	Val	Leu	Ala	Asp	Gln	Ala	Thr	Pro	Thr	Asn	Arg
		515				520						525			
Leu	Ala	Ala	Leu	Pro	Lys	Gly	Arg	Pro	Asp	Arg	Pro	Arg	Asp	Leu	Glu
530					535						540				
Leu	Thr	Asp	Leu	Ala	Glu	Arg	Ser	Val	Arg	Leu	Thr	Trp	Ile	Pro	Gly
545				550						555					560
Asp	Ala	Asn	Asn	Ser	Pro	Ile	Thr	Asp	Tyr	Val	Val	Gln	Phe	Glu	Glu
			565					570						575	
Asp	Gln	Phe	Gln	Pro	Gly	Val	Trp	His	Asp	His	Ser	Lys	Tyr	Pro	Gly
			580					585					590		
Ser	Val	Asn	Ser	Ala	Val	Leu	Arg	Leu	Ser	Pro	Tyr	Val	Asn	Tyr	Gln
		595				600					605				
Phe	Arg	Val	Ile	Ala	Ile	Asn	Glu	Val	Gly	Ser	Ser	His	Pro	Ser	Leu
610					615						620				
Pro	Ser	Glu	Arg	Tyr	Arg	Thr	Ser	Gly	Ala	Pro	Pro	Glu	Ser	Asn	Pro
625					630					635					640

Gly Asp Val Lys Gly Glu Gly Thr Arg Lys Asn Asn Met Glu Ile Thr  
 645 650 655  
 Trp Thr Pro Met Asn Ala Thr Ser Ala Phe Gly Pro Asn Leu Arg Tyr  
 660 665 670  
 Ile Val Lys Trp Arg Arg Arg Glu Thr Arg Glu Ala Trp Asn Asn Val  
 675 680 685  
 Thr Val Trp Gly Ser Arg Tyr Val Val Gly Gln Thr Pro Val Tyr Val  
 690 695 700  
 Pro Tyr Glu Ile Arg Val Gln Ala Glu Asn Asp Phe Gly Lys Gly Pro  
 705 710 715 720  
 Glu Pro Glu Ser Val Ile Gly Tyr Ser Gly Glu Asp Tyr Pro Arg Ala  
 725 730 735  
 Ala Pro Thr Glu Val Lys Val Arg Val Met Asn Ser Thr Ala Ile Ser  
 740 745 750  
 Leu Gln Trp Asn Arg Val Tyr Ser Asp Thr Val Gln Gly Gln Leu Arg  
 755 760 765  
 Glu Tyr Arg Ala Tyr Tyr Trp Arg Glu Ser Ser Leu Leu Lys Asn Leu  
 770 775 780  
 Trp Val Ser Gln Lys Arg Gln Gln Ala Ser Phe Pro Gly Asp Arg Leu  
 785 790 795 800  
 Arg Gly Val Val Ser Arg Leu Phe Pro Tyr Ser Asn Tyr Lys Leu Glu  
 805 810 815  
 Met Val Val Val Asn Gly Arg Gly Asp Gly Pro Arg Ser Glu Thr Lys  
 820 825 830  
 Glu Phe Thr Thr Pro Glu Gly Val Pro Ser Ala Pro Arg Arg Phe Arg  
 835 840 845  
 Val Arg Gln Pro Asn Leu Glu Thr Ile Asn Leu Glu Trp Asp His Pro  
 850 855 860  
 Glu His Pro Asn Gly Ile Met Ile Gly Tyr Thr Leu Lys Tyr Val Ala  
 865 870 875 880  
 Phe Asn Gly Thr Lys Val Gly Lys Gln Ile Val Glu Asn Phe Ser Pro  
 885 890 895  
 Asn Gln Thr Lys Phe Thr Val Gln Arg Thr Asp Pro Val Ser Arg Tyr  
 900 905 910  
 Arg Phe Thr Leu Ser Ala Arg Thr Gln Val Gly Ser Gly Glu Ala Val  
 915 920 925  
 Thr Glu Glu Ser Pro Ala Pro Asn Glu Gly Arg Cys Met Ala Ala  
 930 935 940  
 Ala Pro Gly Val Lys Gly Pro Ser \*  
 945 950 952

&lt;210&gt; 1378

&lt;211&gt; 791

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1378

Met Leu Thr Pro Pro Leu Leu Leu Leu Leu Pro Leu Leu Ser Ala Leu  
 1 5 10 15  
 Val Ala Ala Ala Ile Asp Ala Pro Lys Thr Cys Ser Pro Lys Gln Phe  
 20 25 30  
 Ala Cys Arg Asp Gln Ile Thr Cys Ile Ser Lys Gly Trp Arg Cys Asp  
 35 40 45  
 Gly Glu Arg Asp Cys Pro Asp Gly Ser Asp Glu Ala Pro Glu Ile Cys  
 50 55 60  
 Pro Gln Ser Lys Ala Gln Arg Cys Gln Pro Asn Glu His Asn Cys Leu  
 65 70 75 80  
 Gly Thr Glu Leu Cys Val Pro Met Ser Arg Leu Cys Asn Gly Val Gln  
 85 90 95  
 Asp Cys Met Asp Gly Ser Asp Glu Gly Pro His Cys Arg Glu Leu Gln  
 100 105 110

Gly	Asn	Cys	Ser	Arg	Leu	Gly	Cys	Gln	His	His	Cys	Val	Pro	Thr	Leu
	115						120					125			
Asp	Gly	Pro	Thr	Cys	Tyr	Cys	Asn	Ser	Ser	Phe	Gln	Leu	Gln	Ala	Asp
	130						135				140				
Gly	Lys	Thr	Cys	Lys	Asp	Phe	Asp	Glu	Cys	Ser	Val	Tyr	Gly	Thr	Cys
	145				150					155					160
Ser	Gln	Leu	Cys	Thr	Asn	Thr	Asp	Gly	Ser	Phe	Ile	Cys	Gly	Cys	Val
				165					170					175	
Glu	Gly	Tyr	Leu	Leu	Gln	Pro	Asp	Asn	Arg	Ser	Cys	Lys	Ala	Lys	Asn
			180					185					190		
Glu	Pro	Val	Asp	Arg	Pro	Pro	Val	Leu	Leu	Ile	Ala	Asn	Ser	Gln	Asn
		195					200					205			
Ile	Leu	Ala	Thr	Tyr	Leu	Ser	Gly	Ala	Gln	Val	Ser	Thr	Ile	Thr	Pro
	210					215					220				
Thr	Ser	Thr	Arg	Gln	Thr	Thr	Ala	Met	Asp	Phe	Ser	Tyr	Ala	Asn	Glu
	225				230					235					240
Thr	Val	Cys	Trp	Val	His	Val	Gly	Asp	Ser	Ala	Ala	Gln	Thr	Gln	Leu
				245					250					255	
Lys	Cys	Ala	Arg	Met	Pro	Gly	Leu	Lys	Gly	Phe	Val	Asp	Glu	His	Thr
			260				265						270		
Ile	Asn	Ile	Ser	Leu	Ser	Leu	His	His	Val	Glu	Gln	Met	Ala	Ile	Asp
	275						280					285			
Trp	Leu	Thr	Gly	Asn	Phe	Tyr	Phe	Val	Asp	Asp	Ile	Asp	Asp	Arg	Ile
	290					295					300				
Phe	Val	Cys	Asn	Arg	Asn	Gly	Asp	Thr	Cys	Val	Thr	Leu	Leu	Asp	Leu
	305				310					315					320
Glu	Leu	Tyr	Asn	Pro	Lys	Gly	Ile	Ala	Leu	Asp	Pro	Ala	Met	Gly	Lys
				325					330					335	
Val	Phe	Phe	Thr	Asp	Tyr	Gly	Gln	Ile	Pro	Lys	Val	Glu	Arg	Cys	Asp
			340				345						350		
Met	Asp	Gly	Gln	Asn	Arg	Thr	Lys	Leu	Val	Asp	Ser	Lys	Ile	Val	Phe
	355						360					365			
Pro	His	Gly	Ile	Thr	Leu	Asp	Leu	Val	Ser	Arg	Leu	Val	Tyr	Trp	Ala
	370					375					380				
Asp	Ala	Tyr	Leu	Asp	Tyr	Ile	Glu	Val	Val	Asp	Tyr	Glu	Gly	Lys	Gly
	385				390					395					400
Arg	Gln	Thr	Ile	Ile	Gln	Gly	Ile	Leu	Ile	Glu	His	Leu	Tyr	Gly	Leu
				405					410					415	
Thr	Val	Phe	Glu	Asn	Tyr	Leu	Tyr	Ala	Thr	Asn	Ser	Asp	Asn	Ala	Asn
			420					425					430		
Ala	Gln	Gln	Lys	Thr	Ser	Val	Ile	Arg	Val	Asn	Arg	Phe	Asn	Ser	Thr
	435						440					445			
Glu	Tyr	Gln	Val	Val	Thr	Arg	Val	Asp	Lys	Gly	Gly	Ala	Leu	His	Ile
	450					455				460					
Tyr	His	Gln	Arg	Arg	Gln	Pro	Arg	Val	Arg	Ser	His	Ala	Cys	Glu	Asn
	465				470					475					480
Asp	Gln	Tyr	Gly	Lys	Pro	Gly	Gly	Cys	Ser	Asp	Ile	Cys	Leu	Leu	Ala
				485					490					495	
Asn	Ser	His	Lys	Ala	Arg	Thr	Cys	Arg	Cys	Arg	Ser	Gly	Phe	Ser	Leu
			500					505					510		
Gly	Ser	Asp	Gly	Lys	Ser	Cys	Lys	Lys	Pro	Glu	His	Glu	Leu	Phe	Leu
	515						520					525			
Val	Tyr	Gly	Lys	Gly	Arg	Pro	Gly	Ile	Ile	Arg	Gly	Met	Asp	Met	Gly
	530					535					540				
Ala	Lys	Val	Pro	Asp	Glu	His	Met	Ile	Pro	Ile	Glu	Asn	Leu	Met	Asn
	545				550					555					560
Pro	Arg	Ala	Leu	Asp	Phe	His	Ala	Glu	Thr	Gly	Phe	Ile	Tyr	Phe	Ala
				565					570					575	
Asp	Thr	Thr	Ser	Tyr	Leu	Ile	Gly	Arg	Gln	Lys	Ile	Asp	Gly	Thr	Glu
			580					585					590		
Arg	Glu	Thr	Ile	Leu	Lys	Asp	Gly	Ile	His	Asn	Val	Glu	Gly	Val	Ala
	595						600					605			
Val	Asp	Trp	Met	Gly	Asp	Asn	Leu	Tyr	Trp	Thr	Asp	Asp	Gly	Pro	Lys
	610					615					620				

Lys Thr Ile Ser Val Ala Arg Leu Glu Lys Ala Ala Gln Thr Arg Lys  
 625 630 635 640  
 Thr Leu Ile Glu Gly Lys Met Thr His Pro Arg Ala Ile Val Val Asp  
 645 650 655  
 Pro Leu Asn Gly Trp Met Tyr Trp Thr Asp Trp Glu Glu Asp Pro Lys  
 660 665 670  
 Asp Ser Arg Arg Gly Arg Leu Glu Arg Ala Trp Met Asp Gly Ser His  
 675 680 685  
 Arg Asp Ile Phe Val Thr Ser Lys Thr Val Leu Trp Pro Asn Gly Leu  
 690 695 700  
 Ser Leu Asp Ile Pro Ala Gly Arg Leu Tyr Trp Val Asp Ala Phe Tyr  
 705 710 715 720  
 Asp Arg Ile Glu Thr Ile Leu Leu Asn Gly Thr Asp Arg Lys Ile Val  
 725 730 735  
 Tyr Glu Gly Pro Glu Leu Asn His Ala Phe Gly Leu Cys His His Gly  
 740 745 750  
 Asn Tyr Leu Phe Trp Thr Glu Tyr Arg Ser Gly Ser Val Tyr Arg Leu  
 755 760 765  
 Glu Arg Gly Val Gly Gly Ala Pro Pro Thr Val Thr Leu Leu Arg Ser  
 770 775 780  
 Glu Pro Ala Pro His Leu \*  
 785 790

<210> 1379  
 <211> 162  
 <212> PRT  
 <213> Homo sapiens

<400> 1379  
 Met Ala Gly Ile Leu Arg Leu Val Val Gln Trp Pro Pro Gly Arg Leu  
 1 5 10 15  
 Gln Thr Val Thr Lys Gly Val Glu Ser Leu Ile Cys Thr Asp Trp Ile  
 20 25 30  
 Arg His Lys Phe Thr Arg Ser Arg Ile Pro Glu Lys Val Phe Gln Ala  
 35 40 45  
 Ser Pro Glu Asp His Glu Lys Tyr Gly Gly Asp Pro Gln Asn Pro His  
 50 55 60  
 Lys Leu His Ile Val Thr Arg Ile Lys Ser Thr Arg Arg Arg Pro Tyr  
 65 70 75 80  
 Trp Glu Lys Asp Ile Ile Lys Met Leu Gly Leu Glu Lys Ala His Thr  
 85 90 95  
 Pro Gln Val His Lys Asn Ile Pro Ser Val Asn Ala Lys Leu Lys Val  
 100 105 110  
 Val Lys His Leu Ile Arg Ile Lys Pro Leu Lys Leu Pro Gln Gly Leu  
 115 120 125  
 Pro Thr Glu Glu Asn Met Ser Asn Thr Cys Leu Lys Ser Thr Gly Glu  
 130 135 140  
 Leu Val Val Gln Trp His Leu Lys Pro Val Glu Gln Lys Ala His Glu  
 145 150 155 160  
 Ser \*  
 161

<210> 1380  
 <211> 438  
 <212> PRT  
 <213> Homo sapiens

<400> 1380

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Met Pro Glu Glu Lys Asp Cys Gly Gly Gly Asp Ala Leu Ser Asn Gly
 1          5          10          15
Ile Lys Lys His Arg Thr Ser Leu Pro Ser Pro Met Phe Ser Arg Asn
          20          25          30
Asp Phe Ser Ile Trp Ser Ile Leu Arg Lys Cys Ile Gly Met Glu Leu
          35          40          45
Ser Lys Ile Thr Met Pro Val Ile Phe Asn Glu Pro Leu Ser Phe Leu
          50          55          60
Gln Arg Leu Thr Glu Tyr Met Glu His Thr Tyr Leu Ile His Lys Ala
          65          70          75          80
Ser Ser Leu Ser Asp Pro Val Glu Arg Met Gln Cys Val Ala Ala Phe
          85          90          95
Ala Val Ser Ala Val Ala Ser Gln Trp Glu Arg Thr Gly Lys Pro Phe
          100          105          110
Asn Pro Leu Leu Gly Glu Thr Tyr Glu Leu Val Arg Asp Asp Leu Gly
          115          120          125
Phe Arg Leu Ile Ser Glu Gln Val Ser His His Pro Pro Ile Ser Ala
          130          135          140
Phe His Ala Glu Gly Leu Asn Asn Asp Phe Ile Phe His Gly Ser Ile
          145          150          155          160
Tyr Pro Lys Leu Lys Phe Trp Gly Lys Ser Val Glu Ala Glu Pro Lys
          165          170          175
Gly Thr Ile Thr Leu Glu Leu Leu Glu His Asn Glu Ala Tyr Thr Trp
          180          185          190
Thr Asn Pro Thr Cys Cys Val His Asn Ile Ile Val Gly Lys Leu Trp
          195          200          205
Ile Glu Gln Tyr Gly Asn Val Glu Ile Ile Asn His Lys Thr Gly Asp
          210          215          220
Lys Cys Val Leu Asn Phe Lys Pro Cys Gly Leu Phe Gly Lys Glu Leu
          225          230          235          240
His Lys Val Glu Gly Tyr Ile Gln Asp Lys Ser Lys Lys Lys Leu Cys
          245          250          255
Ala Leu Tyr Gly Lys Trp Thr Glu Cys Leu Tyr Ser Val Asp Pro Ala
          260          265          270
Thr Phe Asp Ala Tyr Lys Lys Asn Asp Lys Lys Asn Thr Glu Glu Lys
          275          280          285
Lys Asn Ser Lys Gln Met Ser Thr Ser Glu Glu Leu Asp Glu Met Pro
          290          295          300
Val Pro Asp Ser Glu Ser Val Phe Ile Ile Pro Gly Ser Val Leu Leu
          305          310          315          320
Trp Arg Ile Ala Pro Arg Pro Pro Asn Ser Ala Gln Met Tyr Asn Phe
          325          330          335
Thr Ser Phe Ala Met Val Leu Asn Glu Val Asp Lys Asp Met Glu Ser
          340          345          350
Val Ile Pro Lys Thr Asp Cys Arg Leu Arg Pro Asp Ile Arg Ala Met
          355          360          365
Glu Asn Gly Glu Ile Asp Gln Ala Ser Glu Glu Lys Lys Arg Leu Glu
          370          375          380
Glu Lys Gln Arg Ala Ala Arg Lys Asn Arg Ser Lys Ser Glu Glu Asp
          385          390          395          400
Trp Lys Thr Arg Trp Phe His Gln Gly Pro Asn Pro Tyr Asn Gly Ala
          405          410          415
Gln Asp Trp Ile Tyr Ser Gly Ser Tyr Trp Asp Arg Asn Tyr Phe Asn
          420          425          430
Leu Pro Asp Ile Tyr *
          435          437

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&lt;210&gt; 1381

&lt;211&gt; 1564

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<400> 1381

Met	Leu	Gly	Ala	Pro	Pro	Ile	Ser	Leu	Glu	Asn	Leu	Leu	Ala	Ala	Val
1				5					10					15	
Ser	Leu	Ser	Arg	Ile	Lys	Ser	Asn	Val	Asp	Gly	Arg	Tyr	Leu	Val	Asp
			20					25					30		
Gly	Val	Pro	Phe	Ser	Cys	Cys	Asn	Pro	Ser	Ser	Pro	Arg	Pro	Cys	Ile
		35					40					45			
Gln	Tyr	Gln	Ile	Thr	Asn	Asn	Ser	Ala	His	Tyr	Ser	Tyr	Asp	His	Gln
	50					55					60				
Thr	Glu	Glu	Leu	Asn	Leu	Trp	Val	Arg	Gly	Cys	Arg	Ala	Ala	Leu	Leu
	65				70					75				80	
Ser	Tyr	Tyr	Ser	Ser	Leu	Met	Asn	Ser	Met	Gly	Val	Val	Thr	Leu	Leu
				85				90						95	
Ile	Trp	Leu	Phe	Glu	Val	Thr	Ile	Thr	Ile	Gly	Leu	Arg	Tyr	Leu	Gln
		100					105						110		
Thr	Ser	Leu	Asp	Gly	Val	Ser	Asn	Pro	Glu	Glu	Ser	Glu	Ser	Glu	Ser
		115					120					125			
Glu	Gly	Trp	Leu	Leu	Glu	Lys	Ser	Val	Pro	Glu	Thr	Trp	Lys	Ala	Phe
	130					135					140				
Leu	Glu	Ser	Val	Lys	Lys	Leu	Gly	Lys	Gly	Asn	Gln	Val	Thr	Val	Ala
	145				150					155					160
Ile	Asn	Lys	Asn	Ile	Ser	Ser	Asp	Pro	Leu	Pro	Arg	Ala	Val	Asp	Asn
			165						170					175	
Glu	Phe	Glu	Thr	Val	Ala	Thr	Gln	Leu	Leu	Lys	Arg	Thr	Gln	Ala	Met
			180				185						190		
Leu	Asn	Lys	Tyr	Arg	Cys	Leu	Leu	Leu	Glu	Asp	Ala	Met	Arg	Ile	Asn
		195					200					205			
Pro	Ser	Ala	Glu	Met	Val	Met	Ile	Asp	Arg	Met	Phe	Asn	Gln	Glu	Glu
	210				215						220				
Arg	Ala	Ser	Leu	Ser	Arg	Asp	Lys	Arg	Leu	Ala	Leu	Val	Asp	Pro	Glu
	225				230					235					240
Gly	Phe	Gln	Ala	Asp	Phe	Cys	Cys	Ser	Phe	Lys	Leu	Asp	Lys	Ala	Ala
			245						250					255	
His	Glu	Thr	Gln	Phe	Gly	Arg	Ser	Asp	Gln	His	Gly	Ser	Lys	Ala	Ser
		260					265						270		
Ser	Ser	Leu	Gln	Pro	Pro	Ala	Lys	Ala	Gln	Gly	Arg	Asp	Arg	Ala	Lys
		275					280					285			
Thr	Gly	Val	Thr	Glu	Pro	Met	Asn	His	Asp	Gln	Phe	His	Leu	Val	Pro
	290					295					300				
Asn	His	Ile	Val	Val	Ser	Ala	Glu	Gly	Asn	Ile	Ser	Lys	Lys	Thr	Glu
	305				310					315					320
Cys	Leu	Gly	Arg	Ala	Leu	Lys	Phe	Asp	Lys	Val	Gly	Leu	Val	Gln	Tyr
			325						330					335	
Gln	Ser	Thr	Ser	Glu	Glu	Lys	Ala	Ser	Arg	Arg	Glu	Pro	Leu	Lys	Ala
		340					345					350			
Ser	Gln	Cys	Ser	Pro	Gly	Pro	Glu	Gly	His	Arg	Lys	Thr	Ser	Ser	Arg
		355					360					365			
Ser	Asp	His	Gly	Thr	Glu	Ser	Lys	Leu	Ser	Ser	Ile	Leu	Ala	Asp	Ser
	370					375					380				
His	Leu	Glu	Met	Thr	Cys	Asn	Asn	Ser	Phe	Gln	Asp	Lys	Ser	Leu	Arg
	385				390					395					400
Asn	Ser	Pro	Lys	Asn	Glu	Val	Leu	His	Thr	Asp	Ile	Met	Lys	Gly	Ser
			405						410					415	
Gly	Glu	Pro	Gln	Pro	Asp	Leu	Gln	Leu	Thr	Lys	Ser	Leu	Glu	Thr	Thr
		420					425						430		
Phe	Lys	Asn	Ile	Leu	Glu	Leu	Lys	Ala	Gly	Arg	Gln	Pro	Gln	Ser	
		435					440					445			
Asp	Pro	Thr	Val	Ser	Gly	Ser	Val	Glu	Leu	Asp	Phe	Pro	Asn	Phe	Ser
	450					455					460				
Pro	Met	Ala	Ser	Gln	Glu	Asn	Cys	Leu	Glu	Lys	Phe	Ile	Pro	Asp	His
	465				470					475				480	
Ser	Asp	Val	Val	Met	Asp	Asp	Asp	Asp	Asp	Ser	Cys	Leu	Leu	Asp	Leu
				485				490						495	



3158

Phe Ala Thr Met Pro Ser Val Thr Ser Met Ser Gly Pro Ser Arg Phe  
 1010 1015 1020  
 Pro Ala Val Ser Ser Ala Ser Thr Ala His Pro Ser Leu Gly Ser Ala  
 1025 1030 1035 1040  
 Val Gln Ser Gly Ser Ser Gly Ser Asn Phe Thr Gly Asp Gln Leu Thr  
 1045 1050 1055  
 Gln Pro Asn Arg Thr Pro Val Pro Val Ser Val Ser His Arg Leu Pro  
 1060 1065 1070  
 Val Ser Ser Ser Lys Ser Thr Ser Thr Phe Ser Asn Thr Pro Gly Thr  
 1075 1080 1085  
 Gly Thr Gln Gln Gln Phe Phe Cys Gln Ala Gln Lys Lys Cys Leu Asn  
 1090 1095 1100  
 Gln Thr Ser Pro Ile Ser Ala Pro Lys Thr Thr Asp Gly Leu Arg Gln  
 1105 1110 1115 1120  
 Ala Gln Ile Pro Gly Leu Leu Ser Thr Thr Leu Pro Gly Gln Asp Ser  
 1125 1130 1135  
 Gly Ser Lys Val Ile Ser Ala Ser Leu Gly Thr Ala Gln Pro Gln Gln  
 1140 1145 1150  
 Glu Lys Val Val Gly Ser Ser Pro Gly His Pro Ala Val Gln Val Glu  
 1155 1160 1165  
 Ser His Ser Gly Gly Gln Lys Arg Pro Ala Ala Lys Gln Leu Thr Lys  
 1170 1175 1180  
 Gly Ala Phe Ile Leu Gln Gln Leu Gln Arg Asp Gln Ala His Thr Val  
 1185 1190 1195 1200  
 Thr Pro Asp Lys Ser His Phe Arg Ser Leu Ser Asp Ala Val Gln Arg  
 1205 1210 1215  
 Leu Leu Ser Tyr His Val Cys Gln Gly Ser Met Pro Thr Glu Glu Asp  
 1220 1225 1230  
 Leu Arg Lys Val Asp Asn Glu Phe Glu Thr Val Ala Thr Gln Leu Leu  
 1235 1240 1245  
 Lys Arg Thr Gln Ala Met Leu Asn Lys Tyr Arg Cys Leu Leu Leu Glu  
 1250 1255 1260  
 Asp Ala Met Arg Ile Asn Pro Ser Ala Glu Met Val Met Ile Asp Arg  
 1265 1270 1275 1280  
 Met Phe Asn Gln Glu Glu Arg Ala Ser Leu Ser Arg Asp Lys Arg Leu  
 1285 1290 1295  
 Ala Leu Val Asp Pro Glu Gly Phe Gln Ala Asp Phe Cys Cys Ser Phe  
 1300 1305 1310  
 Lys Leu Asp Lys Ala Ala His Glu Thr Gln Phe Gly Arg Ser Asp Gln  
 1315 1320 1325  
 His Gly Ser Lys Ala Ser Ser Ser Leu Gln Pro Pro Ala Lys Ala Gln  
 1330 1335 1340  
 Gly Arg Asp Arg Ala Lys Thr Gly Val Thr Glu Pro Met Asn His Asp  
 1345 1350 1355 1360  
 Gln Phe His Leu Val Pro Asn His Ile Val Val Ser Ala Glu Gly Asn  
 1365 1370 1375  
 Ile Ser Lys Lys Thr Glu Cys Leu Gly Arg Ala Leu Lys Phe Asp Lys  
 1380 1385 1390  
 Val Gly Leu Val Gln Tyr Gln Ser Thr Ser Glu Glu Lys Ala Ser Arg  
 1395 1400 1405  
 Arg Glu Pro Leu Lys Ala Ser Gln Cys Ser Pro Gly Pro Glu Gly His  
 1410 1415 1420  
 Arg Lys Thr Ser Ser Arg Ser Asp His Gly Thr Glu Ser Lys Leu Ser  
 1425 1430 1435 1440  
 Ser Ile Leu Ala Asp Ser His Leu Glu Met Thr Cys Asn Asn Ser Phe  
 1445 1450 1455  
 Gln Asp Lys Ser Leu Arg Asn Ser Pro Lys Asn Glu Val Leu His Thr  
 1460 1465 1470  
 Asp Ile Met Lys Gly Ser Gly Glu Pro Gln Pro Asp Leu Gln Leu Thr  
 1475 1480 1485  
 Lys Ser Leu Glu Thr Thr Phe Lys Asn Ile Leu Glu Leu Lys Lys Ala  
 1490 1495 1500  
 Gly Arg Gln Pro Gln Ser Asp Pro Thr Val Ser Gly Ser Val Glu Leu  
 1505 1510 1515 1520

Asp Phe Pro Asn Phe Ser Pro Met Ala Ser Gln Glu Asn Cys Leu Glu  
                   1525                  1530                  1535  
 Lys Phe Ile Pro Asp His Ser Glu Gly Val Val Glu Thr Asp Ser Ile  
                   1540                  1545                  1550  
 Leu Glu Ala Ala Val Asn Ser Ile Leu Glu Cys \*  
                   1555                  1560                  1563

<210> 1382  
 <211> 186  
 <212> PRT  
 <213> Homo sapiens

<400> 1382  
 Met Ala Gly Pro Arg Pro Arg Trp Arg Asp Gln Leu Leu Phe Met Ser  
   1                  5                  10                  15  
 Ile Ile Val Leu Val Ile Val Val Ile Cys Leu Met Leu Tyr Ala Leu  
                   20                  25                  30  
 Leu Trp Glu Ala Gly Asn Leu Thr Asp Leu Pro Asn Leu Arg Ile Gly  
                   35                  40                  45  
 Phe Tyr Asn Phe Cys Leu Trp Asn Glu Asp Thr Ser Thr Leu Gln Cys  
                   50                  55                  60  
 His Gln Phe Pro Glu Leu Glu Ala Leu Gly Val Pro Arg Val Gly Leu  
                   65                  70                  75                  80  
 Gly Leu Ala Arg Leu Gly Val Tyr Gly Ser Leu Val Leu Thr Leu Phe  
                   85                  90                  95  
 Ala Pro Gln Pro Leu Leu Leu Ala Gln Cys Asn Ser Asp Glu Arg Ala  
                   100                  105                  110  
 Trp Arg Leu Ala Val Gly Phe Leu Ala Val Ser Ser Val Leu Leu Ala  
                   115                  120                  125  
 Gly Gly Leu Gly Leu Phe Leu Ser Tyr Val Trp Lys Trp Val Arg Leu  
                   130                  135                  140  
 Ser Leu Pro Gly Pro Gly Phe Leu Ala Leu Gly Ser Ala Gln Ala Leu  
                   145                  150                  155                  160  
 Leu Ile Leu Leu Leu Ile Ala Met Ala Val Phe Pro Leu Arg Ala Glu  
                   165                  170                  175  
 Arg Ala Glu Ser Lys Leu Glu Ser Cys \*  
                   180                  185

<210> 1383  
 <211> 386  
 <212> PRT  
 <213> Homo sapiens

<400> 1383  
 Met Ala Ala Val Val Ala Ala Thr Ala Leu Lys Gly Arg Gly Ala Arg  
   1                  5                  10                  15  
 Asn Ala Arg Val Leu Arg Gly Ile Leu Ala Gly Ala Thr Ala Asn Lys  
                   20                  25                  30  
 Ala Ser His Asn Arg Thr Arg Ala Leu Gln Ser His Ser Ser Pro Glu  
                   35                  40                  45  
 Gly Lys Glu Glu Pro Glu Pro Leu Ser Pro Glu Leu Glu Tyr Ile Pro  
                   50                  55                  60  
 Arg Lys Arg Gly Lys Asn Pro Met Lys Ala Val Gly Leu Ala Trp Tyr  
                   65                  70                  75                  80  
 Ser Leu Tyr Thr Arg Thr Trp Leu Gly Tyr Leu Phe Tyr Arg Gln Gln  
                   85                  90                  95  
 Leu Arg Arg Ala Arg Asn Arg Tyr Pro Lys Gly His Ser Lys Thr Gln  
                   100                  105                  110

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Pro Arg Leu Phe Asn Gly Val Lys Val Leu Pro Ile Pro Val Leu Ser
    115      120      125
Asp Asn Tyr Ser Tyr Leu Ile Asp Thr Gln Ala Gln Leu Ala Val
    130      135      140
Ala Val Asp Pro Ser Asp Pro Arg Ala Val Gln Ala Ser Ile Glu Lys
    145      150      155      160
Glu Gly Val Thr Leu Val Ala Ile Leu Cys Thr His Lys His Trp Asp
    165      170      175
His Ser Gly Gly Asn Arg Asp Leu Ser Arg Arg His Arg Asp Cys Arg
    180      185      190
Val Tyr Gly Ser Pro Gln Asp Gly Ile Pro Tyr Leu Thr His Pro Leu
    195      200      205
Cys His Gln Asp Val Val Ser Val Gly Arg Leu Gln Ile Arg Ala Leu
    210      215      220
Ala Thr Pro Gly His Thr Gln Gly His Leu Val Tyr Leu Leu Asp Gly
    225      230      235      240
Glu Pro Tyr Lys Gly Pro Ser Cys Leu Phe Ser Gly Asp Leu Leu Phe
    245      250      255
Leu Ser Gly Cys Gly Arg Thr Phe Glu Gly Asn Ala Glu Thr Met Leu
    260      265      270
Ser Ser Leu Asp Thr Val Leu Gly Leu Gly Asp Asp Thr Leu Leu Trp
    275      280      285
Pro Gly His Glu Tyr Ala Glu Glu Asn Leu Gly Phe Ala Gly Val Val
    290      295      300
Glu Pro Glu Asn Leu Ala Arg Glu Arg Lys Met Gln Trp Val Gln Arg
    305      310      315      320
Gln Arg Leu Glu Arg Lys Gly Thr Cys Pro Ser Thr Leu Gly Glu Glu
    325      330      335
Arg Ser Tyr Asn Pro Phe Leu Arg Thr His Cys Leu Ala Leu Gln Glu
    340      345      350
Ala Leu Gly Pro Gly Pro Gly Pro Thr Gly Asp Asp Asp Tyr Ser Arg
    355      360      365
Ala Gln Leu Leu Glu Glu Leu Arg Arg Leu Lys Asp Met His Lys Ser
    370      375      380
Lys *
385

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<210> 1384
<211> 446
<212> PRT
<213> Homo sapiens

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<400> 1384
Met Leu Leu Phe Val Glu Gln Val Ala Ser Lys Gly Thr Gly Leu Asn
  1      5      10      15
Pro Asn Ala Lys Val Trp Gln Glu Ile Ala Pro Gly Asn Thr Asp Ala
    20      25      30
Thr Pro Val Thr His Gly Thr Glu Ser Ser Trp His Glu Ile Ala Ala
    35      40      45
Thr Ser Gly Ala His Pro Glu Gly Asn Ala Glu Leu Ser Glu Asp Ile
    50      55      60
Cys Lys Glu Tyr Glu Val Met Tyr Ser Ser Ser Cys Glu Thr Thr Arg
    65      70      75      80
Asn Thr Thr Gly Ile Glu Glu Ser Thr Asp Gly Met Ile Leu Gly Pro
    85      90      95
Glu Asp Leu Ser Tyr Gln Ile Tyr Asp Val Ser Gly Glu Ser Asn Ser
    100      105      110
Ala Val Ser Thr Glu Asp Leu Lys Glu Cys Leu Lys Lys Gln Leu Glu
    115      120      125
Phe Cys Phe Ser Arg Glu Asn Phe Ser Lys Asp Leu Tyr Leu Ile Ser
    130      135      140

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Gln Met Asp Ser Asp Gln Phe Ile Pro Ile Trp Thr Val Ala Asn Met  
 145 150 155 160  
 Glu Glu Ile Lys Lys Leu Thr Thr Asp Pro Asp Leu Ile Leu Glu Val  
 165 170 175  
 Leu Arg Ser Ser Pro Met Val Gln Val Asp Glu Lys Gly Glu Lys Val  
 180 185 190  
 Arg Pro Ser His Lys Arg Cys Ile Val Ile Leu Arg Glu Ile Pro Glu  
 195 200 205  
 Thr Thr Pro Ile Glu Glu Val Lys Gly Leu Phe Lys Ser Glu Asn Cys  
 210 215 220  
 Pro Lys Val Ile Ser Cys Glu Phe Ala His Asn Ser Asn Trp Tyr Ile  
 225 230 235 240  
 Thr Phe Gln Ser Asp Thr Asp Ala Gln Gln Ala Phe Lys Tyr Leu Arg  
 245 250 255  
 Glu Glu Val Lys Thr Phe Gln Gly Lys Pro Ile Met Ala Arg Ile Lys  
 260 265 270  
 Ala Ile Asn Thr Phe Phe Ala Lys Asn Gly Tyr Arg Leu Met Asp Ser  
 275 280 285  
 Ser Ile Tyr Ser His Pro Ile Gln Thr Gln Ala Gln Tyr Ala Ser Pro  
 290 295 300  
 Val Phe Met Gln Pro Val Tyr Asn Pro His Gln Gln Tyr Ser Val Tyr  
 305 310 315 320  
 Ser Ile Val Pro Gln Ser Trp Ser Pro Asn Pro Thr Pro Tyr Phe Glu  
 325 330 335  
 Thr Pro Leu Ala Pro Phe Pro Asn Gly Ser Phe Val Asn Gly Phe Asn  
 340 345 350  
 Ser Pro Gly Ser Tyr Lys Thr Asn Ala Ala Ala Met Asn Met Gly Arg  
 355 360 365  
 Pro Phe Gln Lys Asn Arg Val Lys Pro Gln Phe Arg Ser Ser Gly Gly  
 370 375 380  
 Ser Glu His Ser Thr Glu Gly Ser Val Ser Leu Gly Asp Gly Gln Leu  
 385 390 395 400  
 Asn Arg Tyr Ser Ser Arg Asn Phe Pro Ala Glu Arg His Asn Pro Thr  
 405 410 415  
 Val Thr Gly His Gln Glu Gln Thr Tyr Leu Gln Lys Glu Thr Ser Thr  
 420 425 430  
 Leu Gln Val Glu Gln Asn Gly Asp Tyr Gly Arg Gly Arg \*  
 435 440 445

<210> 1385  
 <211> 191  
 <212> PRT  
 <213> Homo sapiens

<400> 1385  
 Met Ala Arg His Val Phe Leu Thr Gly Pro Pro Gly Val Gly Lys Thr  
 1 5 10 15  
 Thr Leu Ile His Lys Ala Ser Glu Val Leu Lys Ser Ser Gly Val Pro  
 20 25 30  
 Val Asp Gly Phe Tyr Thr Glu Glu Val Arg Gln Gly Gly Arg Arg Ile  
 35 40 45  
 Gly Phe Asp Val Val Thr Leu Ser Gly Thr Arg Gly Pro Leu Ser Arg  
 50 55 60  
 Val Gly Leu Glu Pro Pro Gly Lys Arg Glu Cys Arg Val Gly Gln  
 65 70 75 80  
 Tyr Val Val Asp Leu Thr Ser Phe Glu Gln Leu Ala Leu Pro Val Leu  
 85 90 95  
 Arg Asn Ala Asp Cys Ser Ser Gly Pro Gly Gln Arg Val Cys Val Ile  
 100 105 110  
 Asp Glu Ile Gly Lys Met Glu Leu Phe Ser Gln Leu Phe Ile Gln Ala  
 115 120 125

Val Arg Gln Thr Leu Ser Thr Pro Gly Thr Ile Ile Leu Gly Thr Ile  
 130 135 140  
 Pro Val Pro Lys Gly Lys Pro Leu Ala Leu Val Glu Glu Ile Arg Asn  
 145 150 155 160  
 Arg Lys Asp Val Lys Val Phe Asn Val Thr Lys Glu Asn Arg Asn His  
 165 170 175  
 Leu Leu Pro Asp Ile Val Thr Cys Val Gln Ser Ser Arg Lys \*  
 180 185 190

<210> 1386  
 <211> 404  
 <212> PRT  
 <213> Homo sapiens

<400> 1386  
 Met Glu Pro Val Gly Cys Cys Gly Glu Cys Arg Gly Ser Ser Val Asp  
 1 5 10 15  
 Pro Arg Ser Thr Phe Val Leu Ser Asn Leu Ala Glu Val Val Glu Arg  
 20 25 30  
 Val Leu Thr Phe Leu Pro Ala Lys Ala Leu Leu Arg Val Ala Cys Val  
 35 40 45  
 Cys Arg Leu Trp Arg Glu Cys Val Arg Arg Val Leu Arg Thr His Arg  
 50 55 60  
 Ser Val Thr Trp Ile Ser Ala Gly Leu Ala Glu Ala Gly His Leu Glu  
 65 70 75 80  
 Gly His Cys Leu Val Arg Val Val Ala Glu Glu Leu Glu Asn Val Arg  
 85 90 95  
 Ile Leu Pro His Thr Val Leu Tyr Met Ala Asp Ser Glu Thr Phe Ile  
 100 105 110  
 Ser Leu Glu Glu Cys Arg Gly His Lys Arg Ala Arg Lys Arg Thr Ser  
 115 120 125  
 Met Glu Thr Ala Leu Ala Leu Glu Lys Leu Phe Pro Lys Gln Cys Gln  
 130 135 140  
 Val Leu Gly Ile Val Thr Pro Gly Ile Val Val Thr Pro Met Gly Ser  
 145 150 155 160  
 Gly Ser Asn Arg Pro Gln Glu Ile Glu Ile Gly Glu Ser Gly Phe Ala  
 165 170 175  
 Leu Leu Phe Pro Gln Ile Glu Gly Ile Lys Ile Gln Pro Phe His Phe  
 180 185 190  
 Ile Lys Asp Pro Lys Asn Leu Thr Leu Glu Arg His Gln Leu Thr Glu  
 195 200 205  
 Val Gly Leu Leu Asp Asn Pro Glu Leu Arg Val Val Leu Val Phe Gly  
 210 215 220  
 Tyr Asn Cys Cys Lys Val Gly Ala Ser Asn Tyr Leu Gln Gln Val Val  
 225 230 235 240  
 Ser Thr Phe Ser Asp Met Asn Ile Ile Leu Ala Gly Gly Gln Val Asp  
 245 250 255  
 Asn Leu Ser Ser Leu Thr Ser Glu Lys Asn Pro Leu Asp Ile Asp Ala  
 260 265 270  
 Ser Gly Val Val Gly Leu Ser Phe Ser Gly His Arg Ile Gln Ser Ala  
 275 280 285  
 Thr Val Leu Leu Asn Glu Asp Val Ser Asp Glu Lys Thr Ala Glu Ala  
 290 295 300  
 Ala Met Gln Arg Leu Lys Ala Ala Asn Ile Pro Glu His Asn Thr Ile  
 305 310 315 320  
 Gly Phe Met Phe Ala Cys Val Gly Arg Gly Phe Gln Tyr Tyr Arg Ala  
 325 330 335  
 Lys Gly Asn Val Glu Ala Asp Ala Phe Arg Lys Phe Phe Pro Ser Val  
 340 345 350  
 Pro Leu Phe Gly Phe Phe Gly Asn Gly Glu Ile Gly Cys Asp Arg Ile  
 355 360 365

Val Thr Gly Asn Phe Ile Leu Arg Lys Cys Asn Glu Val Lys Asp Asp  
 370 375 380  
 Asp Leu Phe His Ser Tyr Thr Thr Ile Met Ala Leu Ile His Leu Gly  
 385 390 395 400  
 Ser Ser Lys \*  
 403

<210> 1387  
 <211> 227  
 <212> PRT  
 <213> Homo sapiens

<400> 1387  
 Met Trp Pro Gly Ile Leu Ala Gly Gly Ala Arg Glu Ala Ser Cys Arg  
 1 5 10 15  
 Tyr Pro Ala Leu Gly Pro Arg Leu Ala Ala His Phe Pro Ala Gln Arg  
 20 25 30  
 Pro Pro Gln Arg Thr Leu Gln Asn Gly Leu Ala Leu Gln Arg Cys Leu  
 35 40 45  
 His Ala Thr Ala Thr Arg Ala Leu Pro Leu Ile Pro Ile Val Val Glu  
 50 55 60  
 Gln Thr Gly Arg Gly Glu Arg Ala Tyr Asp Ile Tyr Ser Arg Leu Leu  
 65 70 75 80  
 Arg Glu Arg Ile Val Cys Val Met Gly Pro Ile Asp Asp Ser Val Ala  
 85 90 95  
 Ser Leu Val Ile Ala Gln Leu Leu Phe Leu Leu Leu Ala Ala Gly Thr  
 100 105 110  
 Pro Gly Met Arg His Ser Leu Pro Asn Ser Arg Ile Met Ile His Gln  
 115 120 125  
 Pro Ser Gly Gly Ala Arg Gly Gln Ala Thr Asp Ile Ala Ile Gln Ala  
 130 135 140  
 Glu Glu Ile Met Lys Leu Lys Lys Gln Leu Tyr Asn Ile Tyr Ala Lys  
 145 150 155 160  
 His Thr Lys Gln Ser Leu Gln Val Ile Glu Ser Ala Met Glu Arg Asp  
 165 170 175  
 Arg Tyr Met Ser Pro Met Glu Ala Gln Glu Phe Gly Ile Leu Asp Lys  
 180 185 190  
 Val Leu Val His Pro Pro Gln Asp Gly Glu Asp Glu Pro Thr Leu Val  
 195 200 205  
 Gln Lys Glu Pro Val Glu Ala Ala Pro Ala Ala Glu Pro Val Pro Ala  
 210 215 220  
 Ser Thr \*  
 225 226

<210> 1388  
 <211> 75  
 <212> PRT  
 <213> Homo sapiens

<400> 1388  
 Met Leu Thr Ser Leu Ser Arg Pro Ile Thr Thr Met Ala Leu Ser Ala  
 1 5 10 15  
 Leu Val Tyr Pro Gly Met Cys Gly Leu Leu Ala Lys His Leu Ser Phe  
 20 25 30  
 His Ile Val Gly Ala Phe Leu Ile Thr Leu Gly Leu Gln Leu Ser Val  
 35 40 45  
 Ser Leu Leu Trp Pro Asp Gln Glu Arg Arg His Met Gln Ile Ser Thr  
 50 55 60

Glu Ile Ile Ile Glu Leu Lys Asn Leu Arg \*  
 65 70 74

<210> 1389  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 1389  
 Met Ser Gly Arg Leu Trp Ser Lys Ala Ile Phe Ala Gly Tyr Lys Arg  
 1 5 10 15  
 Gly Leu Arg Asn Gln Arg Glu His Thr Ala Leu Leu Lys Ile Glu Gly  
 20 25 30  
 Val Tyr Ala Arg Asp Glu Thr Glu Phe Tyr Leu Gly Lys Arg Cys Ala  
 35 40 45  
 Tyr Val Tyr Lys Ala Lys Asn Asn Thr Val Thr Pro Gly Gly Lys Pro  
 50 55 60  
 Asn Lys Thr Arg Val Ile Trp Gly Lys Val Thr Arg Ala His Gly Asn  
 65 70 75 80  
 Ser Gly Met Val Arg Ala Lys Phe Arg Ser Asn Leu Pro Ala Lys Ala  
 85 90 95  
 Ile Gly His Arg Ile Arg Val Met Leu Tyr Pro Ser Arg Ile \*  
 100 105 110

<210> 1390  
 <211> 906  
 <212> PRT  
 <213> Homo sapiens

<400> 1390  
 Met Gln Leu Trp Ile Pro Lys Asp Lys Ser Arg Thr Leu Met Thr Leu  
 1 5 10 15  
 Lys Val Leu Asn Ala Val Ser Glu Thr Val Ala Thr Ser Thr Ala Gly  
 20 25 30  
 Ile Pro Ser Ala Ala Thr Pro Ser Leu Leu Leu Ala Thr Ala Glu Met  
 35 40 45  
 Ile Pro Ser Thr Ala Trp Ile Pro Leu Ala Leu Ala Arg Arg Gln Thr  
 50 55 60  
 Pro Ser Pro Asp Val Val Leu Arg Gly Ser Ser Asp Gly Arg Gly Ser  
 65 70 75 80  
 Asp Ser Glu Ser Asp Leu Pro His Arg Lys Leu Pro Asp Val Lys Lys  
 85 90 95  
 Asp Asp Met Ser Ala Arg Arg Thr Ser His Gly Glu Pro Lys Ser Ala  
 100 105 110  
 Val Pro Phe Asn Gln Tyr Leu Pro Asn Lys Ser Asn Gln Thr Ala Tyr  
 115 120 125  
 Val Pro Ala Pro Leu Arg Lys Lys Lys Ala Glu Arg Glu Glu Tyr Arg  
 130 135 140  
 Lys Ser Trp Ser Thr Ala Thr Ser Pro Leu Gly Gly Glu Arg Pro Phe  
 145 150 155 160  
 Arg Tyr Gly Pro Arg Thr Pro Val Ser Asp Asp Ala Glu Ser Thr Ser  
 165 170 175  
 Met Phe Asp Met Arg Cys Glu Glu Glu Ala Ala Val Gln Pro His Ser  
 180 185 190  
 Arg Ala Arg Gln Glu Gln Leu Gln Leu Ile Asn Asn Gln Leu Arg Glu  
 195 200 205  
 Glu Asp Asp Lys Trp Gln Asp Asp Leu Ala Arg Trp Lys Ser Arg Arg  
 210 215 220



Arg Ser Val Ser Gln Asp Leu Ile Lys Lys Glu Glu Glu Arg Lys Lys  
 225 230 235 240  
 Met Glu Lys Leu Leu Ala Gly Glu Asp Gly Thr Ser Glu Arg Arg Lys  
 245 250 255  
 Ser Ile Lys Thr Tyr Arg Glu Ile Val Gln Glu Lys Glu Arg Arg Glu  
 260 265 270  
 Arg Glu Leu His Glu Ala Tyr Lys Asn Ala Arg Ser Gln Glu Glu Ala  
 275 280 285  
 Glu Gly Ile Leu Gln Gln Tyr Ile Glu Arg Phe Thr Ile Ser Glu Ala  
 290 295 300  
 Val Leu Glu Arg Leu Glu Met Pro Lys Ile Leu Glu Arg Ser His Ser  
 305 310 315 320  
 Thr Glu Pro Asn Leu Ser Ser Phe Leu Asn Asp Pro Asn Pro Met Lys  
 325 330 335  
 Tyr Leu Arg Gln Gln Ser Leu Pro Pro Pro Lys Phe Thr Ala Thr Val  
 340 345 350  
 Glu Thr Thr Ile Ala Arg Ala Ser Val Leu Asp Thr Ser Met Ser Ala  
 355 360 365  
 Gly Ser Gly Ser Pro Ser Lys Thr Val Thr Pro Lys Ala Val Pro Met  
 370 375 380  
 Leu Thr Pro Lys Pro Tyr Ser Gln Pro Lys Asn Ser Gln Asp Val Leu  
 385 390 395 400  
 Lys Thr Phe Lys Val Asp Gly Lys Val Ser Val Asn Gly Glu Thr Val  
 405 410 415  
 His Arg Glu Glu Glu Lys Glu Arg Glu Cys Pro Thr Val Ala Pro Ala  
 420 425 430  
 His Ser Leu Thr Lys Ser Gln Met Phe Glu Gly Val Ala Arg Val His  
 435 440 445  
 Gly Ser Pro Leu Glu Leu Lys Gln Asp Asn Gly Ser Ile Glu Ile Asn  
 450 455 460  
 Ile Lys Lys Pro Asn Ser Val Pro Gln Glu Leu Ala Ala Thr Thr Glu  
 465 470 475 480  
 Lys Thr Glu Pro Asn Ser Gln Glu Asp Lys Asn Asp Gly Gly Lys Ser  
 485 490 495  
 Arg Lys Gly Asn Ile Glu Leu Ala Ser Ser Glu Pro Gln His Phe Thr  
 500 505 510  
 Thr Thr Val Thr Arg Cys Ser Pro Thr Val Ala Phe Val Glu Phe Pro  
 515 520 525  
 Ser Ser Pro Gln Leu Lys Asn Asp Val Ser Glu Glu Lys Asp Gln Lys  
 530 535 540  
 Lys Pro Glu Asn Glu Met Ser Gly Lys Val Glu Leu Val Leu Ser Gln  
 545 550 555 560  
 Lys Val Val Lys Pro Lys Ser Pro Glu Pro Glu Ala Thr Leu Thr Phe  
 565 570 575  
 Pro Phe Leu Asp Lys Met Pro Glu Ala Asn Gln Leu His Leu Pro Asn  
 580 585 590  
 Leu Asn Ser Gln Val Asp Ser Pro Ser Ser Glu Lys Ser Pro Val Thr  
 595 600 605  
 Thr Pro Phe Lys Phe Trp Ala Trp Asp Pro Glu Glu Arg Arg Arg  
 610 615 620  
 Gln Glu Lys Trp Gln Gln Glu Glu Arg Leu Leu Gln Glu Arg Tyr  
 625 630 635 640  
 Gln Lys Glu Gln Asp Lys Leu Lys Glu Glu Trp Glu Lys Ala Gln Lys  
 645 650 655  
 Glu Val Glu Glu Glu Glu Arg Arg Tyr Tyr Glu Glu Glu Arg Lys Ile  
 660 665 670  
 Ile Glu Asp Thr Val Val Pro Phe Thr Val Ser Ser Ser Ser Ala Asp  
 675 680 685  
 Gln Leu Ser Thr Ser Ser Ser Met Thr Glu Gly Ser Gly Thr Met Asn  
 690 695 700  
 Lys Ile Asp Leu Gly Asn Cys Gln Asp Glu Lys Gln Asp Arg Arg Trp  
 705 710 715 720  
 Lys Lys Ser Phe Gln Gly Asp Asp Ser Asp Leu Leu Leu Lys Thr Arg  
 725 730 735

Glu Ser Asp Arg Leu Glu Glu Lys Gly Ser Leu Thr Glu Gly Ala Leu  
 740 745 750  
 Ala His Ser Gly Asn Pro Val Ser Lys Gly Val His Glu Asp His Gln  
 755 760 765  
 Leu Asp Thr Glu Ala Gly Ala Pro His Cys Gly Thr Asn Pro Gln Leu  
 770 775 780  
 Ala Gln Asp Pro Ser Gln Asn Gln Gln Thr Ser Asn Pro Thr His Ser  
 785 790 795 800  
 Ser Glu Asp Val Lys Pro Lys Thr Leu Pro Leu Asp Lys Ser Ile Asn  
 805 810 815  
 His Gln Ile Glu Ser Pro Ser Glu Arg Arg Lys Ser Ile Ser Gly Lys  
 820 825 830  
 Lys Leu Cys Ser Ser Cys Gly Leu Pro Leu Gly Lys Gly Ala Ala Met  
 835 840 845  
 Ile Ile Glu Thr Leu Asn Leu Tyr Phe His Ile Gln Cys Phe Arg Cys  
 850 855 860  
 Gly Ile Cys Lys Gly Gln Leu Gly Asp Ala Val Ser Gly Thr Asp Val  
 865 870 875 880  
 Arg Ile Arg Asn Gly Leu Leu Asn Cys Asn Asp Cys Tyr Met Arg Ser  
 885 890 895  
 Arg Ser Ala Gly Gln Pro Thr Thr Leu \*  
 900 905

<210> 1391  
 <211> 128  
 <212> PRT  
 <213> Homo sapiens

<400> 1391  
 Met Glu Pro Gly Asn Arg Ser Leu Asn Pro His Lys Thr Lys His His  
 1 5 10 15  
 Met Glu Cys Arg Val Thr Gly Arg Ala Glu Val Thr Ala Ser Arg Glu  
 20 25 30  
 Gly Arg Gly Ala Cys Ala Trp Glu Cys Gly Ser Ser Arg Gly Pro Trp  
 35 40 45  
 Gly Leu Leu Arg Tyr Thr Phe Ala Pro Val Arg Ala Ser Arg Pro Trp  
 50 55 60  
 Ala Cys Leu Pro Lys Gly Ser Leu Ser Gln Arg Pro Lys Val Pro Pro  
 65 70 75 80  
 Pro Val His Leu Pro Pro Lys Ser Ser Cys Pro Pro Arg Ala Gly Gly  
 85 90 95  
 Gly Gly Ala Gln Gly Arg Arg Val Pro Cys Thr Tyr Leu Ser Pro Leu  
 100 105 110  
 Ser His Ser Pro Lys Thr Phe Cys Thr Phe Leu Gln Gly Cys Pro \*  
 115 120 125 127

<210> 1392  
 <211> 30  
 <212> PRT  
 <213> Homo sapiens

<400> 1392  
 Met Lys Lys Ser Pro Glu Ile Ile Ser Gly Arg Met Thr Phe Gly Thr  
 1 5 10 15  
 Ala Ser Glu Leu Ala Ser Val Cys Met Pro Arg Asn Lys \*  
 20 25 29

<210> 1393  
 <211> 1248  
 <212> PRT  
 <213> Homo sapiens

<400> 1393

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Met Glu Asp Ala Gly Ala Ala Gly Pro Gly Pro Glu Pro Glu Pro Glu
 1      5      10      15
Pro Glu Pro Glu Pro Glu Pro Ala Pro Glu Pro Glu Pro Glu Pro Lys
      20      25      30
Pro Gly Ala Gly Thr Ser Glu Ala Phe Ser Arg Leu Trp Thr Asp Val
      35      40      45
Met Gly Ile Leu Asp Gly Ser Leu Gly Asn Ile Asp Asp Leu Ala Gln
      50      55      60
Gln Tyr Ala Asp Tyr Tyr Asn Thr Cys Phe Ser Asp Val Cys Glu Arg
      65      70      75      80
Met Glu Glu Leu Arg Lys Arg Arg Val Ser Gln Asp Leu Glu Val Glu
      85      90      95
Lys Pro Asp Ala Ser Pro Thr Ser Leu Gln Leu Arg Ser Gln Ile Glu
      100      105      110
Glu Ser Leu Gly Phe Cys Ser Ala Val Ser Thr Pro Glu Val Glu Arg
      115      120      125
Lys Asn Pro Leu His Lys Ser Asn Ser Glu Asp Ser Ser Val Gly Lys
      130      135      140
Gly Asp Trp Lys Lys Lys Asn Lys Tyr Phe Trp Gln Asn Phe Arg Lys
      145      150      155      160
Asn Gln Lys Gly Ile Met Arg Gln Thr Ser Lys Gly Glu Asp Val Gly
      165      170      175
Tyr Val Ala Ser Glu Ile Thr Met Ser Asp Glu Glu Arg Ile Gln Leu
      180      185      190
Met Met Met Val Lys Glu Lys Met Ile Thr Ile Glu Glu Ala Leu Ala
      195      200      205
Arg Leu Lys Glu Tyr Glu Ala Gln His Arg Gln Ser Ala Ala Leu Asp
      210      215      220
Pro Ala Asp Trp Pro Asp Gly Ser Tyr Pro Thr Phe Asp Gly Ser Ser
      225      230      235      240
Asn Cys Asn Ser Arg Glu Gln Ser Asp Asp Glu Thr Glu Glu Ser Val
      245      250      255
Lys Phe Lys Arg Leu His Lys Leu Val Asn Ser Thr Arg Arg Val Arg
      260      265      270
Lys Lys Leu Ile Arg Val Glu Glu Met Lys Lys Pro Ser Thr Glu Gly
      275      280      285
Gly Glu Glu His Val Phe Glu Asn Ser Pro Val Leu Asp Glu Arg Ser
      290      295      300
Ala Leu Tyr Ser Gly Val His Lys Lys Pro Leu Phe Phe Asp Gly Ser
      305      310      315      320
Pro Glu Lys Pro Pro Glu Asp Asp Ser Asp Ser Leu Thr Thr Ser Pro
      325      330      335
Ser Ser Ser Ser Leu Asp Thr Trp Gly Ala Gly Arg Lys Leu Val Lys
      340      345      350
Thr Phe Ser Lys Gly Glu Ser Arg Gly Leu Ile Lys Pro Pro Lys Lys
      355      360      365
Met Gly Thr Phe Phe Ser Tyr Pro Glu Glu Glu Lys Ala Gln Lys Val
      370      375      380
Ser Arg Ser Leu Thr Glu Gly Glu Met Lys Lys Gly Leu Gly Ser Leu
      385      390      395      400
Ser His Gly Arg Thr Cys Ser Phe Gly Gly Phe Asp Leu Thr Asn Arg
      405      410      415
Ser Leu His Val Gly Ser Asn Asn Ser Asp Pro Met Gly Lys Glu Gly
      420      425      430
Asp Phe Val Tyr Lys Glu Val Ile Lys Ser Pro Thr Ala Ser Arg Ile
      435      440      445

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Ser	Leu	Gly	Lys	Lys	Val	Lys	Ser	Val	Lys	Glu	Thr	Met	Arg	Lys	Arg
450						455						460			
Met	Ser	Lys	Lys	Tyr	Ser	Ser	Ser	Val	Ser	Glu	Gln	Asp	Ser	Gly	Leu
465					470					475					480
Asp	Gly	Met	Pro	Gly	Ser	Pro	Pro	Pro	Ser	Gln	Pro	Asp	Pro	Glu	His
				485					490					495	
Leu	Asp	Lys	Pro	Lys	Leu	Lys	Ala	Gly	Gly	Ser	Val	Glu	Ser	Leu	Arg
			500					505					510		
Ser	Ser	Leu	Ser	Gly	Gln	Ser	Ser	Met	Ser	Gly	Gln	Thr	Val	Ser	Thr
		515				520						525			
Thr	Asp	Ser	Ser	Thr	Ser	Asn	Arg	Glu	Ser	Val	Lys	Ser	Glu	Asp	Gly
	530					535					540				
Asp	Asp	Glu	Glu	Pro	Pro	Tyr	Arg	Gly	Pro	Phe	Cys	Gly	Arg	Ala	Arg
545				550						555					560
Val	His	Thr	Asp	Phe	Thr	Pro	Ser	Pro	Tyr	Asp	Thr	Asp	Ser	Leu	Lys
				565					570					575	
Leu	Lys	Lys	Gly	Asp	Ile	Ile	Asp	Ile	Ile	Ser	Lys	Pro	Pro	Met	Gly
			580					585					590		
Thr	Trp	Met	Gly	Leu	Leu	Asn	Asn	Lys	Val	Gly	Thr	Phe	Lys	Phe	Ile
	595					600						605			
Tyr	Val	Asp	Val	Leu	Ser	Glu	Asp	Glu	Glu	Lys	Pro	Lys	Arg	Pro	Thr
	610					615					620				
Arg	Arg	Arg	Arg	Lys	Gly	Arg	Pro	Pro	Gln	Pro	Lys	Ser	Val	Glu	Asp
625				630						635					640
Leu	Leu	Asp	Arg	Ile	Asn	Leu	Lys	Glu	His	Met	Pro	Thr	Phe	Leu	Phe
				645					650					655	
Asn	Gly	Tyr	Glu	Asp	Leu	Asp	Thr	Phe	Lys	Leu	Leu	Glu	Glu	Glu	Asp
			660					665					670		
Leu	Asp	Glu	Leu	Asn	Ile	Arg	Asp	Pro	Glu	His	Arg	Ala	Val	Leu	Leu
	675					680						685			
Thr	Ala	Val	Glu	Leu	Leu	Gln	Glu	Tyr	Asp	Ser	Asn	Ser	Asp	Gln	Ser
	690					695					700				
Gly	Ser	Gln	Glu	Lys	Leu	Leu	Val	Asp	Ser	Gln	Gly	Leu	Ser	Gly	Cys
705				710						715					720
Ser	Pro	Arg	Asp	Ser	Gly	Cys	Tyr	Glu	Ser	Ser	Glu	Asn	Leu	Glu	Asn
				725					730					735	
Gly	Lys	Thr	Arg	Lys	Ala	Ser	Leu	Leu	Ser	Ala	Lys	Ser	Ser	Thr	Glu
			740					745					750		
Pro	Ser	Leu	Lys	Ser	Phe	Ser	Arg	Asn	Gln	Leu	Gly	Asn	Tyr	Pro	Thr
	755					760						765			
Leu	Pro	Leu	Met	Lys	Ser	Gly	Asp	Ala	Leu	Lys	Gln	Gly	Gln	Glu	Glu
	770					775					780				
Gly	Arg	Leu	Gly	Gly	Gly	Leu	Ala	Pro	Asp	Thr	Ser	Lys	Ser	Cys	Asp
785				790						795					800
Pro	Pro	Gly	Val	Thr	Gly	Leu	Asn	Lys	Asn	Arg	Arg	Ser	Leu	Pro	Val
				805					810					815	
Ser	Ile	Cys	Arg	Ser	Cys	Glu	Thr	Leu	Glu	Gly	Pro	Gln	Thr	Val	Asp
			820					825					830		
Thr	Trp	Pro	Arg	Ser	His	Ser	Leu	Asp	Asp	Leu	Gln	Val	Glu	Pro	Gly
	835					840						845			
Ala	Glu	Gln	Asp	Val	Pro	Thr	Glu	Val	Thr	Glu	Pro	Pro	Pro	Gln	Ile
	850					855					860				
Val	Pro	Glu	Val	Pro	Gln	Lys	Thr	Thr	Ala	Ser	Ser	Thr	Lys	Ala	Gln
865				870						875					880
Pro	Leu	Glu	Arg	Asp	Ser	Ala	Val	Asp	Asn	Ala	Leu	Leu	Leu	Thr	Gln
				885					890					895	
Ser	Lys	Arg	Phe	Ser	Glu	Pro	Gln	Lys	Leu	Thr	Thr	Lys	Lys	Leu	Glu
			900					905					910		
Gly	Ser	Ile	Ala	Ala	Ser	Gly	Arg	Gly	Leu	Ser	Pro	Pro	Gln	Cys	Leu
	915					920						925			
Pro	Arg	Asn	Tyr	Asp	Ala	Gln	Pro	Pro	Gly	Ala	Lys	His	Gly	Leu	Ala
	930					935					940				
Arg	Thr	Pro	Leu	Glu	Gly	His	Arg	Lys	Gly	His	Glu	Phe	Glu	Gly	Thr
945					950					955					960

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His His Pro Leu Gly Thr Lys Glu Gly Val Asp Ala Glu Gln Arg Met
      965      970      975
Gln Pro Lys Ile Pro Ser Gln Pro Pro Val Pro Ala Lys Lys Ser
      980      985      990
Arg Glu Arg Leu Ala Asn Gly Leu His Pro Val Pro Met Gly Pro Ser
      995      1000      1005
Gly Ala Leu Pro Ser Pro Asp Ala Pro Cys Leu Pro Val Lys Arg Gly
      1010      1015      1020
Ser Pro Ala Ser Pro Thr Ser Pro Ser Asp Cys Pro Pro Ala Leu Ala
1025      1030      1035      1040
Pro Arg Pro Leu Ser Gly Gln Ala Pro Gly Ser Pro Pro Ser Thr Arg
      1045      1050      1055
Pro Pro Pro Trp Leu Ser Glu Leu Pro Glu Asn Thr Ser Leu Gln Glu
      1060      1065      1070
His Gly Val Lys Leu Gly Pro Ala Leu Thr Arg Lys Val Ser Cys Ala
      1075      1080      1085
Arg Gly Val Asp Leu Glu Thr Leu Thr Glu Asn Lys Leu His Ala Glu
      1090      1095      1100
Gly Ile Asp Leu Thr Glu Glu Pro Tyr Ser Asp Lys His Gly Arg Cys
1105      1110      1115      1120
Gly Ile Pro Glu Ala Leu Val Gln Arg Tyr Ala Glu Asp Leu Asp Gln
      1125      1130      1135
Pro Glu Arg Asp Val Ala Ala Asn Met Asp Gln Ile Arg Val Lys Gln
      1140      1145      1150
Leu Arg Lys Gln His Arg Met Ala Ile Pro Ser Gly Gly Leu Thr Glu
      1155      1160      1165
Ile Cys Arg Lys Pro Val Ser Pro Gly Cys Ile Ser Ser Val Ser Asp
      1170      1175      1180
Trp Leu Ile Ser Ile Gly Leu Pro Met Tyr Ala Gly Thr Leu Ser Thr
1185      1190      1195      1200
Ala Gly Phe Ser Thr Leu Ser Gln Val Pro Ser Leu Ser His Thr Cys
      1205      1210      1215
Leu Gln Glu Ala Gly Ile Thr Glu Glu Arg His Ile Arg Lys Leu Leu
      1220      1225      1230
Ser Ala Ala Arg Leu Phe Lys Leu Pro Pro Gly Pro Glu Ala Met *
      1235      1240      1245      1247

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<210> 1394
<211> 1513
<212> PRT
<213> Homo sapiens

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<400> 1394
Met Ala Thr Leu Ser Leu Thr Val Asn Ser Gly Asp Pro Pro Leu Gly
 1      5      10      15
Ala Leu Leu Ala Val Glu His Val Lys Asp Asp Val Ser Ile Ser Val
      20      25      30
Glu Glu Gly Lys Glu Asn Ile Leu His Val Ser Glu Asn Val Ile Phe
      35      40      45
Thr Asp Val Asn Ser Ile Leu Arg Tyr Leu Ala Arg Val Ala Thr Thr
      50      55      60
Ala Gly Leu Tyr Gly Ser Asn Leu Met Glu His Thr Glu Ile Asp His
      65      70      75      80
Trp Leu Glu Phe Ser Ala Thr Lys Leu Ser Ser Cys Asp Ser Phe Thr
      85      90      95
Ser Thr Ile Asn Glu Leu Asn His Cys Leu Ser Leu Arg Thr Tyr Leu
      100      105      110
Val Gly Asn Ser Leu Ser Leu Ala Asp Leu Cys Val Trp Ala Thr Leu
      115      120      125
Lys Gly Asn Ala Ala Trp Gln Glu Gln Leu Lys Gln Lys Lys Ala Pro
      130      135      140

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Val	His	Val	Lys	Arg	Trp	Phe	Gly	Phe	Leu	Glu	Ala	Gln	Gln	Ala	Phe	145		150		155		160
Gln	Ser	Val	Gly	Thr	Lys	Trp	Asp	Val	Ser	Thr	Thr	Lys	Ala	Arg	Val		165		170			175
Ala	Pro	Glu	Lys	Lys	Gln	Asp	Val	Gly	Lys	Phe	Val	Glu	Leu	Pro	Gly		180		185			190
Ala	Glu	Met	Gly	Lys	Val	Thr	Val	Arg	Phe	Pro	Pro	Glu	Ala	Ser	Gly		195		200			205
Tyr	Leu	His	Ile	Gly	His	Ala	Lys	Ala	Ala	Leu	Leu	Asn	Gln	His	Tyr		210		215			220
Gln	Val	Asn	Phe	Lys	Gly	Lys	Leu	Ile	Met	Arg	Phe	Asp	Asp	Thr	Asn		225		230			235
Pro	Glu	Lys	Lys	Lys	Glu	Asp	Phe	Glu	Lys	Val	Ile	Leu	Glu	Asp	Val		245		250			255
Ala	Met	Leu	His	Ile	Lys	Pro	Asp	Gln	Phe	Thr	Tyr	Thr	Ser	Asp	His		260		265			270
Phe	Glu	Thr	Ile	Met	Lys	Tyr	Ala	Glu	Lys	Leu	Ile	Gln	Glu	Gly	Lys		275		280			285
Ala	Tyr	Val	Asp	Asp	Thr	Pro	Ala	Glu	Gln	Met	Lys	Ala	Glu	Arg	Glu		290		295			300
Gln	Arg	Ile	Glu	Ser	Lys	His	Arg	Lys	Asn	Pro	Ile	Glu	Lys	Asn	Leu		305		310			315
Gln	Met	Trp	Glu	Glu	Met	Lys	Lys	Gly	Ser	Gln	Phe	Gly	Gln	Ser	Cys		325		330			335
Cys	Leu	Arg	Ala	Lys	Ile	Asp	Met	Ser	Ser	Asn	Asn	Gly	Cys	Met	Arg		340		345			350
Asp	Pro	Thr	Leu	Tyr	Arg	Cys	Lys	Ile	Gln	Pro	His	Pro	Arg	Thr	Gly		355		360			365
Asn	Lys	Tyr	Asn	Val	Tyr	Pro	Thr	Tyr	Asp	Phe	Ala	Cys	Pro	Ile	Val		370		375			380
Asp	Ser	Ile	Glu	Gly	Val	Thr	His	Ala	Leu	Arg	Thr	Thr	Glu	Tyr	His		385		390			395
Asp	Arg	Asp	Glu	Gln	Phe	Tyr	Trp	Ile	Ile	Glu	Ala	Leu	Gly	Ile	Arg		405		410			415
Lys	Pro	Tyr	Ile	Trp	Glu	Tyr	Ser	Arg	Leu	Asn	Leu	Asn	Asn	Thr	Val		420		425			430
Leu	Ser	Lys	Arg	Lys	Leu	Thr	Trp	Phe	Val	Asn	Glu	Gly	Leu	Val	Asp		435		440			445
Gly	Trp	Asp	Asp	Pro	Arg	Phe	Pro	Thr	Val	Arg	Gly	Val	Leu	Arg	Arg		450		455			460
Gly	Met	Thr	Val	Glu	Gly	Leu	Lys	Gln	Phe	Ile	Ala	Ala	Gln	Gly	Ser		465		470			475
Ser	Arg	Ser	Val	Val	Asn	Met	Glu	Trp	Asp	Lys	Ile	Trp	Ala	Phe	Asn		485		490			495
Lys	Lys	Val	Ile	Asp	Pro	Val	Ala	Pro	Arg	Tyr	Val	Ala	Leu	Leu	Lys		500		505			510
Lys	Glu	Val	Ile	Pro	Val	Asn	Val	Pro	Glu	Ala	Gln	Glu	Glu	Met	Lys		515		520			525
Glu	Val	Ala	Lys	His	Pro	Lys	Asn	Pro	Glu	Val	Gly	Leu	Lys	Pro	Val		530		535			540
Trp	Tyr	Ser	Pro	Lys	Val	Phe	Ile	Glu	Gly	Ala	Asp	Ala	Glu	Thr	Phe		545		550			555
Ser	Glu	Gly	Glu	Met	Val	Thr	Phe	Ile	Asn	Trp	Gly	Asn	Leu	Asn	Ile		565		570			575
Thr	Lys	Ile	His	Lys	Asn	Ala	Asp	Gly	Lys	Ile	Ile	Ser	Leu	Asp	Ala		580		585			590
Lys	Leu	Asn	Leu	Glu	Asn	Lys	Asp	Tyr	Lys	Lys	Thr	Thr	Lys	Val	Thr		595		600			605
Trp	Leu	Ala	Glu	Thr	Thr	His	Ala	Leu	Pro	Ile	Pro	Val	Ile	Cys	Val		610		615			620
Thr	Tyr	Glu	His	Leu	Ile	Thr	Lys	Pro	Val	Leu	Gly	Lys	Asp	Glu	Asp		625		630			635
Phe	Lys	Gln	Tyr	Val	Asn	Lys	Asn	Ser	Lys	His	Glu	Glu	Leu	Met	Leu		645		650			655

Gly	Asp	Pro	Cys	Leu	Lys	Asp	Leu	Lys	Lys	Gly	Asp	Ile	Ile	Gln	Leu
			660					665					670		
Gln	Arg	Arg	Gly	Phe	Phe	Ile	Cys	Asp	Gln	Pro	Tyr	Glu	Pro	Val	Ser
		675					680					685			
Pro	Tyr	Ser	Cys	Lys	Glu	Ala	Pro	Cys	Val	Leu	Ile	Tyr	Ile	Pro	Asp
		690					695				700				
Gly	His	Thr	Lys	Glu	Met	Pro	Thr	Ser	Gly	Ser	Lys	Glu	Lys	Thr	Lys
705					710						715				720
Val	Glu	Ala	Thr	Lys	Asn	Glu	Thr	Ser	Ala	Pro	Phe	Lys	Glu	Arg	Pro
				725						730				735	
Thr	Pro	Ser	Leu	Asn	Asn	Asn	Cys	Thr	Thr	Ser	Glu	Asp	Ser	Leu	Val
			740						745				750		
Leu	Tyr	Asn	Arg	Val	Ala	Val	Gln	Gly	Asp	Val	Val	Arg	Glu	Leu	Lys
		755					760					765			
Ala	Lys	Lys	Ala	Pro	Lys	Glu	Asp	Val	Asp	Ala	Ala	Val	Lys	Gln	Leu
		770					775					780			
Leu	Ser	Leu	Lys	Ala	Glu	Tyr	Lys	Glu	Lys	Thr	Gly	Gln	Glu	Tyr	Lys
785					790					795					800
Pro	Gly	Asn	Pro	Pro	Ala	Glu	Ile	Gly	Gln	Asn	Ile	Ser	Ser	Asn	Ser
			805						810					815	
Ser	Ala	Ser	Ile	Leu	Glu	Ser	Lys	Ser	Leu	Tyr	Asp	Glu	Val	Ala	Ala
			820						825				830		
Gln	Gly	Glu	Val	Val	Arg	Lys	Leu	Lys	Ala	Glu	Lys	Ser	Pro	Lys	Ala
		835					840					845			
Lys	Ile	Asn	Glu	Ala	Val	Glu	Cys	Leu	Leu	Ser	Leu	Lys	Ala	Gln	Tyr
		850					855				860				
Lys	Glu	Lys	Thr	Gly	Lys	Glu	Tyr	Ile	Pro	Gly	Gln	Pro	Pro	Leu	Ser
865					870					875					880
Gln	Ser	Ser	Asp	Ser	Ser	Pro	Thr	Arg	Asn	Ser	Glu	Pro	Ala	Gly	Leu
				885					890					895	
Glu	Thr	Pro	Glu	Ala	Lys	Val	Leu	Phe	Asp	Lys	Val	Ala	Ser	Gln	Gly
			900					905				910			
Glu	Val	Val	Arg	Lys	Leu	Lys	Thr	Glu	Lys	Ala	Pro	Lys	Asp	Gln	Val
		915					920					925			
Asp	Ile	Ala	Val	Gln	Glu	Leu	Leu	Gln	Leu	Lys	Ala	Gln	Tyr	Lys	Ser
		930				935					940				
Leu	Ile	Gly	Val	Glu	Tyr	Lys	Pro	Val	Ser	Ala	Thr	Gly	Ala	Glu	Asp
945					950					955					960
Lys	Asp	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Ser	Glu	Lys	Gln	Asn
				965					970					975	
Lys	Pro	Gln	Lys	Gln	Asn	Asp	Gly	Gln	Arg	Lys	Asp	Pro	Ser	Lys	Asn
			980					985				990			
Gln	Gly	Gly	Gly	Leu	Ser	Ser	Ser	Gly	Ala	Gly	Glu	Gly	Gln	Gly	Pro
		995					1000					1005			
Lys	Lys	Gln	Thr	Arg	Leu	Gly	Leu	Glu	Ala	Lys	Lys	Glu	Glu	Asn	Leu
		1010				1015					1020				
Ala	Asp	Trp	Tyr	Ser	Gln	Val	Ile	Thr	Lys	Ser	Glu	Met	Ile	Glu	Tyr
1025					1030					1035					1040
His	Asp	Ile	Ser	Gly	Cys	Tyr	Ile	Leu	Arg	Pro	Trp	Ala	Tyr	Ala	Ile
				1045					1050				1055		
Trp	Glu	Ala	Ile	Lys	Asp	Phe	Phe	Asp	Ala	Glu	Ile	Lys	Lys	Leu	Gly
			1060					1065				1070			
Val	Glu	Asn	Cys	Tyr	Phe	Pro	Met	Phe	Val	Ser	Gln	Ser	Ala	Leu	Glu
		1075					1080					1085			
Lys	Glu	Lys	Thr	His	Val	Ala	Asp	Phe	Ala	Pro	Glu	Val	Ala	Trp	Val
		1090				1095					1100				
Thr	Arg	Ser	Gly	Lys	Thr	Glu	Leu	Ala	Glu	Pro	Ile	Ala	Ile	Arg	Pro
1105					1110					1115					1120
Thr	Ser	Glu	Thr	Val	Met	Tyr	Pro	Ala	Tyr	Ala	Lys	Trp	Val	Gln	Ser
				1125					1130				1135		
His	Arg	Asp	Leu	Pro	Ile	Lys	Leu	Asn	Gln	Trp	Cys	Asn	Val	Val	Arg
			1140					1145				1150			
Trp	Glu	Phe	Lys	His	Pro	Gln	Pro	Phe	Leu	Arg	Thr	Arg	Glu	Phe	Leu
		1155					1160					1165			

Trp Gln Glu Gly His Ser Ala Phe Ala Thr Met Glu Glu Ala Ala Glu  
 1170 1175 1180  
 Glu Val Leu Gln Ile Leu Asp Leu Tyr Ala Gln Val Tyr Glu Glu Leu  
 1185 1190 1195 1200  
 Leu Ala Ile Pro Val Val Lys Gly Arg Lys Thr Glu Lys Glu Lys Phe  
 1205 1210 1215  
 Ala Gly Gly Asp Tyr Thr Thr Thr Ile Glu Ala Phe Ile Ser Ala Ser  
 1220 1225 1230  
 Gly Arg Ala Ile Gln Gly Gly Thr Ser His His Leu Gly Gln Asn Phe  
 1235 1240 1245  
 Ser Lys Met Phe Glu Ile Val Phe Glu Asp Pro Lys Ile Pro Gly Glu  
 1250 1255 1260  
 Lys Gln Phe Ala Tyr Gln Asn Ser Trp Gly Leu Thr Thr Arg Thr Ile  
 1265 1270 1275 1280  
 Gly Val Met Thr Met Val His Gly Asp Asn Met Gly Leu Val Leu Pro  
 1285 1290 1295  
 Pro Arg Val Ala Cys Val Gln Val Val Ile Ile Pro Cys Gly Ile Thr  
 1300 1305 1310  
 Asn Ala Leu Ser Glu Glu Asp Lys Glu Ala Leu Ile Ala Lys Cys Asn  
 1315 1320 1325  
 Asp Tyr Arg Arg Arg Leu Leu Ser Val Asn Ile Arg Val Arg Ala Asp  
 1330 1335 1340  
 Leu Arg Asp Asn Tyr Ser Pro Gly Trp Lys Phe Asn His Trp Glu Leu  
 1345 1350 1355 1360  
 Lys Gly Val Pro Ile Arg Leu Glu Val Gly Pro Arg Asp Met Lys Ser  
 1365 1370 1375  
 Cys Gln Phe Val Ala Val Arg Arg Asp Thr Gly Glu Lys Leu Thr Val  
 1380 1385 1390  
 Ala Glu Asn Glu Ala Glu Thr Lys Leu Gln Ala Ile Leu Glu Asp Ile  
 1395 1400 1405  
 Gln Val Thr Leu Phe Thr Arg Ala Ser Glu Asp Leu Lys Thr His Met  
 1410 1415 1420  
 Val Val Ala Asn Thr Met Glu Asp Phe Gln Lys Ile Leu Asp Ser Gly  
 1425 1430 1435 1440  
 Lys Ile Val Gln Ile Pro Phe Cys Gly Glu Ile Asp Cys Glu Asp Trp  
 1445 1450 1455  
 Ile Lys Lys Thr Thr Ala Arg Asp Gln Asp Leu Glu Pro Gly Ala Pro  
 1460 1465 1470  
 Ser Met Gly Ala Lys Ser Leu Cys Ile Pro Phe Lys Pro Leu Cys Glu  
 1475 1480 1485  
 Leu Gln Pro Gly Ala Lys Cys Val Cys Gly Lys Asn Pro Ala Lys Tyr  
 1490 1495 1500  
 Tyr Thr Leu Phe Gly Arg Ser Tyr \*  
 1505 1510 1512

&lt;210&gt; 1395

&lt;211&gt; 746

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1395

Met Pro Phe Pro Val Thr Thr Gln Gly Ser Gln Gln Thr Gln Pro Pro  
 1 5 10 15  
 Gln Lys His Tyr Gly Ile Thr Ser Pro Ile Ser Leu Ala Ala Pro Lys  
 20 25 30  
 Glu Thr Asp Cys Val Leu Thr Gln Lys Leu Ile Glu Thr Leu Lys Pro  
 35 40 45  
 Phe Gly Val Phe Glu Glu Glu Glu Glu Leu Gln Arg Arg Ile Leu Ile  
 50 55 60  
 Leu Gly Lys Leu Asn Asn Leu Val Lys Glu Trp Ile Arg Glu Ile Ser  
 65 70 75 80



Glu	Ser	Lys	Asn	Leu	Pro	Gln	Ser	Val	Ile	Glu	Asn	Val	Gly	Gly	Lys	85	90	95
Ile	Phe	Thr	Phe	Gly	Ser	Tyr	Arg	Leu	Gly	Val	His	Thr	Lys	Gly	Ala	100	105	110
Asp	Ile	Asp	Ala	Leu	Cys	Val	Ala	Pro	Arg	His	Val	Asp	Arg	Ser	Asp	115	120	125
Phe	Phe	Thr	Ser	Phe	Tyr	Asp	Lys	Leu	Lys	Leu	Gln	Glu	Glu	Val	Lys	130	135	140
Asp	Leu	Arg	Ala	Val	Glu	Glu	Ala	Phe	Val	Pro	Val	Ile	Lys	Leu	Cys	145	150	155
Phe	Asp	Gly	Ile	Glu	Ile	Asp	Ile	Leu	Phe	Ala	Arg	Leu	Ala	Leu	Gln	165	170	175
Thr	Ile	Pro	Glu	Asp	Leu	Asp	Leu	Arg	Asp	Asp	Ser	Leu	Leu	Lys	Asn	180	185	190
Leu	Asp	Ile	Arg	Cys	Ile	Arg	Ser	Leu	Asn	Gly	Cys	Arg	Val	Thr	Asp	195	200	205
Glu	Ile	Leu	His	Leu	Val	Pro	Asn	Ile	Asp	Asn	Phe	Arg	Leu	Thr	Leu	210	215	220
Arg	Ala	Ile	Lys	Leu	Trp	Ala	Lys	Arg	His	Asn	Ile	Tyr	Ser	Asn	Ile	225	230	235
Leu	Gly	Phe	Leu	Gly	Gly	Val	Ser	Trp	Ala	Met	Leu	Val	Ala	Arg	Thr	245	250	255
Cys	Gln	Leu	Tyr	Pro	Asn	Ala	Ile	Ala	Ser	Thr	Leu	Val	His	Lys	Phe	260	265	270
Phe	Leu	Val	Phe	Ser	Lys	Trp	Glu	Trp	Pro	Asn	Pro	Val	Leu	Leu	Lys	275	280	285
Gln	Pro	Glu	Glu	Cys	Asn	Leu	Asn	Leu	Pro	Val	Trp	Asp	Pro	Arg	Val	290	295	300
Asn	Pro	Ser	Asp	Arg	Tyr	His	Leu	Met	Pro	Ile	Ile	Thr	Pro	Ala	Tyr	305	310	315
Pro	Gln	Gln	Asn	Ser	Thr	Tyr	Asn	Val	Ser	Val	Ser	Thr	Arg	Met	Val	325	330	335
Met	Val	Glu	Glu	Phe	Lys	Gln	Gly	Leu	Ala	Ile	Thr	Asp	Glu	Ile	Leu	340	345	350
Leu	Ser	Lys	Ala	Glu	Trp	Ser	Lys	Leu	Phe	Glu	Ala	Pro	Asn	Phe	Phe	355	360	365
Gln	Lys	Tyr	Lys	His	Tyr	Ile	Val	Leu	Leu	Ala	Ser	Ala	Pro	Thr	Glu	370	375	380
Lys	Gln	Arg	Leu	Glu	Trp	Val	Gly	Leu	Val	Glu	Ser	Lys	Ile	Arg	Ile	385	390	395
Leu	Val	Gly	Ser	Leu	Glu	Lys	Asn	Glu	Phe	Ile	Thr	Leu	Ala	His	Val	405	410	415
Asn	Pro	Gln	Ser	Phe	Pro	Ala	Pro	Lys	Glu	Asn	Pro	Asp	Lys	Glu	Glu	420	425	430
Phe	Arg	Thr	Met	Trp	Val	Ile	Gly	Leu	Val	Phe	Lys	Lys	Thr	Glu	Asn	435	440	445
Ser	Glu	Asn	Leu	Ser	Val	Asp	Leu	Thr	Tyr	Asp	Ile	Gln	Ser	Phe	Thr	450	455	460
Asp	Thr	Val	Tyr	Arg	Gln	Ala	Ile	Asn	Ser	Lys	Met	Phe	Glu	Val	Asp	465	470	475
Met	Lys	Ile	Ala	Ala	Met	His	Val	Lys	Arg	Lys	Gln	Leu	His	Gln	Leu	485	490	495
Leu	Pro	Asn	His	Val	Leu	Gln	Lys	Lys	Lys	Lys	His	Ser	Thr	Glu	Gly	500	505	510
Val	Lys	Leu	Thr	Ala	Leu	Asn	Asp	Ser	Ser	Leu	Asp	Leu	Ser	Met	Asp	515	520	525
Ser	Asp	Asn	Ser	Met	Ser	Val	Pro	Ser	Pro	Thr	Ser	Ala	Thr	Lys	Thr	530	535	540
Ser	Pro	Leu	Asn	Ser	Ser	Gly	Ser	Ser	Gln	Gly	Arg	Asn	Ser	Pro	Ala	545	550	555
Pro	Ala	Val	Thr	Ala	Ala	Ser	Val	Thr	Asn	Ile	Gln	Ala	Thr	Glu	Val	565	570	575
Ser	Val	Pro	Gln	Val	Asn	Ser	Ser	Glu	Ser	Ser	Gly	Gly	Thr	Ser	Ser	580	585	590

Glu Ser Ile Pro Gln Thr Ala Thr Gln Pro Ala Ile Ser Pro Pro Pro  
 595 600 605  
 Lys Pro Thr Val Ser Arg Val Val Ser Ser Thr Arg Leu Val Asn Pro  
 610 615 620  
 Pro Pro Arg Ser Ser Gly Asn Ala Ala Thr Ser Gly Asn Ala Ala Thr  
 625 630 635 640  
 Lys Ile Pro Thr Pro Ile Val Gly Val Lys Arg Thr Ser Ser Pro His  
 645 650 655  
 Lys Glu Glu Ser Pro Lys Lys Thr Lys Thr Glu Glu Asp Glu Thr Ser  
 660 665 670  
 Glu Asp Ala Asn Cys Leu Ala Leu Ser Gly His Asp Lys Thr Glu Ala  
 675 680 685  
 Lys Glu Gln Leu Asp Thr Glu Thr Ser Thr Thr Gln Ser Glu Thr Ile  
 690 695 700  
 Gln Thr Ala Ala Ser Leu Leu Ala Ser Gln Lys Thr Ser Ser Thr Asp  
 705 710 715 720  
 Leu Ser Asp Ile Pro Ala Leu Pro Ala Asn Pro Ile Pro Val Ile Lys  
 725 730 735  
 Asn Ser Ile Lys Leu Arg Leu Asn Arg \*  
 740 745

<210> 1396  
 <211> 1009  
 <212> PRT  
 <213> Homo sapiens

<400> 1396  
 Met Ser Tyr Asp Tyr His Gln Asn Trp Gly Arg Asp Gly Gly Pro Arg  
 1 5 10 15  
 Ser Ser Gly Gly Gly Tyr Gly Gly Gly Pro Ala Gly Gly His Gly Gly  
 20 25 30  
 Asn Arg Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Arg Gly  
 35 40 45  
 Gly Arg Gly Arg His Pro Gly His Leu Lys Gly Arg Glu Ile Gly Met  
 50 55 60  
 Trp Tyr Ala Lys Lys Gln Gly Gln Lys Asn Lys Glu Ala Glu Arg Gln  
 65 70 75 80  
 Glu Arg Ala Val Val His Met Asp Glu Arg Arg Glu Glu Gln Ile Val  
 85 90 95  
 Gln Leu Leu Asn Ser Val Gln Ala Lys Asn Asp Lys Glu Ser Glu Ala  
 100 105 110  
 Gln Ile Ser Trp Phe Ala Pro Glu Asp His Gly Tyr Gly Thr Glu Val  
 115 120 125  
 Ser Thr Lys Asn Thr Pro Cys Ser Glu Asn Lys Leu Asp Ile Gln Glu  
 130 135 140  
 Lys Lys Leu Ile Asn Gln Glu Lys Lys Met Phe Arg Ile Arg Asn Arg  
 145 150 155 160  
 Ser Tyr Ile Asp Arg Asp Ser Glu Tyr Leu Leu Gln Glu Asn Glu Pro  
 165 170 175  
 Asp Gly Thr Leu Asp Gln Lys Leu Leu Glu Asp Leu Gln Lys Lys Lys  
 180 185 190  
 Asn Asp Leu Arg Tyr Ile Glu Met Gln His Phe Arg Glu Lys Leu Pro  
 195 200 205  
 Ser Tyr Gly Met Gln Lys Glu Leu Val Asn Leu Ile Asp Asn His Gln  
 210 215 220  
 Val Thr Val Ile Ser Gly Glu Thr Gly Cys Gly Lys Thr Thr Gln Val  
 225 230 235 240  
 Thr Gln Phe Ile Leu Asp Asn Tyr Ile Glu Arg Gly Lys Gly Ser Ala  
 245 250 255  
 Cys Arg Ile Val Cys Thr Gln Pro Arg Arg Ile Ser Ala Ile Ser Val  
 260 265 270

Ala	Glu	Arg	Val	Ala	Ala	Glu	Arg	Ala	Glu	Ser	Cys	Gly	Ser	Gly	Asn
	275						280					285			
Ser	Thr	Gly	Tyr	Gln	Ile	Arg	Leu	Gln	Ser	Arg	Leu	Pro	Arg	Lys	Gln
	290					295					300				
Gly	Ser	Ile	Leu	Tyr	Cys	Thr	Thr	Gly	Ile	Ile	Leu	Gln	Trp	Leu	Gln
305					310					315					320
Ser	Asp	Pro	Tyr	Leu	Ser	Ser	Val	Ser	His	Ile	Val	Leu	Asp	Glu	Ile
				325					330					335	
His	Glu	Arg	Asn	Leu	Gln	Ser	Asp	Val	Leu	Met	Thr	Val	Val	Lys	Asp
			340					345						350	
Leu	Leu	Asn	Phe	Arg	Ser	Asp	Leu	Lys	Val	Ile	Leu	Met	Ser	Ala	Thr
		355					360					365			
Leu	Asn	Ala	Glu	Lys	Phe	Ser	Glu	Tyr	Phe	Gly	Asn	Cys	Pro	Met	Ile
	370					375					380				
His	Ile	Pro	Gly	Phe	Thr	Phe	Pro	Val	Val	Glu	Tyr	Leu	Leu	Glu	Asp
385					390					395					400
Val	Ile	Glu	Lys	Ile	Arg	Tyr	Val	Pro	Glu	Gln	Lys	Glu	His	Arg	Ser
			405						410					415	
Gln	Phe	Lys	Arg	Gly	Phe	Met	Gln	Gly	His	Val	Asn	Arg	Gln	Lys	Lys
			420					425					430		
Lys	Lys	Lys	Glu	Ala	Ile	Tyr	Lys	Glu	Arg	Trp	Pro	Asp	Tyr	Val	Arg
		435					440					445			
Glu	Leu	Arg	Arg	Arg	Tyr	Ser	Ala	Ser	Thr	Val	Asp	Val	Ile	Glu	Met
	450					455					460				
Met	Glu	Asp	Asp	Lys	Val	Asp	Leu	Asn	Leu	Ile	Val	Ala	Leu	Ile	Arg
465					470					475					480
Tyr	Ile	Val	Leu	Glu	Glu	Glu	Asp	Gly	Ala	Ile	Leu	Val	Phe	Leu	Pro
			485						490					495	
Gly	Trp	Asp	Asn	Ile	Ser	Thr	Leu	His	Asp	Leu	Leu	Met	Ser	Gln	Val
		500						505					510		
Met	Phe	Lys	Ser	Asp	Lys	Phe	Leu	Ile	Ile	Pro	Leu	His	Ser	Leu	Met
	515						520					525			
Pro	Thr	Val	Asn	Gln	Thr	Gln	Val	Phe	Lys	Arg	Thr	Pro	Pro	Gly	Val
	530					535					540				
Arg	Lys	Ile	Val	Ile	Ala	Thr	Asn	Ile	Ala	Glu	Thr	Ser	Ile	Thr	Ile
545					550					555					560
Asp	Asp	Val	Val	Tyr	Val	Ile	Asp	Gly	Gly	Lys	Ile	Lys	Glu	Thr	His
			565						570					575	
Phe	Asp	Thr	Gln	Asn	Asn	Ile	Ser	Thr	Met	Ser	Ala	Glu	Trp	Val	Ser
		580						585					590		
Lys	Ala	Asn	Ala	Lys	Gln	Arg	Lys	Gly	Arg	Ala	Gly	Arg	Val	Gln	Pro
	595						600					605			
Gly	His	Cys	Tyr	His	Leu	Tyr	Asn	Gly	Leu	Arg	Ala	Ser	Leu	Leu	Asp
	610					615					620				
Asp	Tyr	Gln	Leu	Pro	Glu	Ile	Leu	Arg	Thr	Pro	Leu	Glu	Glu	Leu	Cys
625					630						635				640
Leu	Gln	Ile	Lys	Ile	Leu	Arg	Leu	Gly	Gly	Ile	Ala	Tyr	Phe	Leu	Ser
			645						650					655	
Arg	Leu	Met	Asp	Pro	Pro	Ser	Asn	Glu	Ala	Val	Leu	Leu	Ser	Ile	Arg
		660						665					670		
His	Leu	Met	Glu	Leu	Asn	Ala	Leu	Asp	Lys	Gln	Glu	Glu	Leu	Thr	Pro
	675						680					685			
Leu	Gly	Val	His	Leu	Ala	Arg	Leu	Pro	Val	Glu	Pro	His	Ile	Gly	Lys
	690					695					700				
Met	Ile	Leu	Phe	Gly	Ala	Leu	Phe	Cys	Cys	Leu	Asp	Pro	Val	Leu	Thr
705					710					715					720
Ile	Ala	Ala	Ser	Leu	Ser	Phe	Lys	Asp	Pro	Phe	Val	Ile	Pro	Leu	Gly
			725						730					735	
Lys	Glu	Lys	Ile	Ala	Asp	Ala	Arg	Arg	Lys	Glu	Leu	Ala	Lys	Asp	Thr
		740						745					750		
Arg	Ser	Asp	His	Leu	Thr	Val	Val	Asn	Ala	Phe	Glu	Gly	Trp	Glu	Glu
	755						760					765			
Ala	Arg	Arg	Arg	Gly	Phe	Arg	Tyr	Glu	Lys	Asp	Tyr	Cys	Trp	Glu	Tyr
	770					775					780				

Phe Leu Ser Ser Asn Thr Leu Gln Met Leu His Asn Met Lys Gly Gln  
 785 790 795 800  
 Phe Ala Glu His Leu Leu Gly Ala Gly Phe Val Ser Ser Arg Asn Pro  
 805 810 815  
 Lys Asp Pro Glu Ser Asn Ile Asn Ser Asp Asn Glu Lys Ile Ile Lys  
 820 825 830  
 Ala Val Ile Cys Ala Gly Leu Tyr Pro Lys Val Ala Lys Ile Arg Leu  
 835 840 845  
 Asn Leu Gly Lys Lys Arg Lys Met Val Lys Val Tyr Thr Lys Thr Asp  
 850 855 860  
 Gly Leu Val Ala Val His Pro Lys Ser Val Asn Val Glu Gln Thr Asp  
 865 870 875 880  
 Phe His Tyr Asn Trp Leu Ile Tyr His Leu Lys Met Arg Thr Ser Ser  
 885 890 895  
 Ile Tyr Leu Tyr Asp Cys Thr Glu Val Ser Pro Tyr Cys Leu Leu Phe  
 900 905 910  
 Phe Gly Gly Asp Ile Ser Ile Gln Lys Asp Asn Asp Gln Glu Thr Ile  
 915 920 925  
 Ala Val Asp Glu Trp Ile Val Phe Gln Ser Pro Ala Arg Ile Ala His  
 930 935 940  
 Leu Val Lys Glu Leu Arg Lys Glu Leu Asp Ile Leu Leu Gln Glu Lys  
 945 950 955 960  
 Ile Glu Ser Pro His Pro Val Asp Trp Asn Asp Thr Lys Ser Arg Asp  
 965 970 975  
 Cys Ala Val Leu Ser Ala Ile Ile Asp Leu Ile Lys Thr Gln Glu Lys  
 980 985 990  
 Ala Thr Pro Arg Asn Phe Pro Pro Arg Phe Gln Asp Gly Tyr Tyr Ser  
 995 1000 1005 1008  
 \*

<210> 1397  
 <211> 49  
 <212> PRT  
 <213> Homo sapiens

<400> 1397  
 Met Lys Arg Lys Pro Arg Ala Ser Ser Pro Val Val Glu Glu Gln Pro  
 1 5 10 15  
 Arg Ala Asn Thr Lys Glu Thr Arg Lys Lys Lys Ser Phe Ser Gln Pro  
 20 25 30  
 Met Thr Ala Ser Thr Lys Lys Ser Pro Lys Ile Ala Lys Lys Gly Lys  
 35 40 45 48  
 \*

<210> 1398  
 <211> 250  
 <212> PRT  
 <213> Homo sapiens

<400> 1398  
 Met Lys Ile Thr Arg Gln Lys His Ala Lys Lys His Leu Gly Phe Phe  
 1 5 10 15  
 Arg Asn Asn Phe Gly Val Arg Glu Pro Tyr Gln Ile Leu Leu Asp Gly  
 20 25 30  
 Thr Phe Cys Gln Ala Ala Leu Arg Gly Arg Ile Gln Leu Arg Glu Gln  
 35 40 45

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Leu Pro Arg Tyr Leu Met Gly Glu Thr Gln Leu Cys Thr Thr Arg Cys
 50          55          60
Val Leu Lys Glu Leu Glu Thr Leu Gly Lys Asp Leu Tyr Gly Ala Lys
 65          70          75          80
Leu Ile Ala Gln Lys Cys Gln Val Arg Asn Cys Pro His Phe Lys Asn
          85          90          95
Ala Val Ser Gly Ser Glu Cys Leu Leu Ser Met Val Glu Glu Gly Asn
          100          105          110
Pro His His Tyr Phe Val Ala Thr Gln Asp Gln Asn Leu Ser Val Lys
          115          120          125
Val Lys Lys Lys Pro Gly Val Pro Leu Met Phe Ile Ile Gln Asn Thr
          130          135          140
Met Val Leu Asp Lys Pro Ser Pro Lys Thr Ile Ala Phe Val Lys Ala
          145          150          155          160
Val Glu Ser Gly Gln Leu Val Ser Val His Glu Lys Glu Ser Ile Lys
          165          170          175
His Leu Lys Glu Glu Gln Gly Leu Val Lys Asn Thr Glu Gln Ser Arg
          180          185          190
Arg Lys Lys Arg Lys Lys Ile Ser Gly Pro Asn Pro Leu Ser Cys Leu
          195          200          205
Lys Lys Lys Lys Lys Ala Pro Asp Thr Gln Ser Ser Ala Ser Glu Lys
          210          215          220
Lys Arg Lys Arg Lys Arg Ile Arg Asn Arg Ser Asn Pro Lys Val Leu
          225          230          235          240
Ser Glu Lys Gln Asn Ala Glu Gly Glu *
          245          249

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&lt;210&gt; 1399

&lt;211&gt; 450

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1399

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Met Arg Glu Cys Ile Ser Val His Val Gly Gln Ala Gly Val Gln Ile
 1          5          10          15
Gly Asn Ala Cys Trp Glu Leu Phe Cys Leu Glu His Gly Ile Gln Ala
          20          25          30
Asp Gly Thr Phe Asp Ala Gln Ala Ser Lys Ile Asn Asp Asp Asp Ser
          35          40          45
Phe Thr Thr Phe Phe Ser Glu Thr Gly Asn Gly Lys His Val Pro Arg
          50          55          60
Ala Val Met Ile Asp Leu Glu Pro Thr Val Val Asp Glu Val Arg Ala
          65          70          75          80
Gly Thr Tyr Arg Gln Leu Phe His Pro Glu Gln Leu Ile Thr Gly Lys
          85          90          95
Glu Asp Ala Ala Asn Asn Tyr Ala Arg Gly His Tyr Thr Val Gly Lys
          100          105          110
Glu Ser Ile Asp Leu Val Leu Asp Arg Ile Arg Lys Leu Thr Asp Ala
          115          120          125
Cys Ser Gly Leu Gln Gly Phe Leu Ile Phe His Ser Phe Gly Gly Gly
          130          135          140
Thr Gly Ser Gly Phe Thr Ser Leu Leu Met Glu Arg Leu Ser Leu Asp
          145          150          155          160
Tyr Gly Lys Lys Ser Lys Leu Glu Phe Ala Ile Tyr Pro Ala Pro Gln
          165          170          175
Val Ser Thr Ala Val Val Glu Pro Tyr Asn Ser Ile Leu Thr Thr His
          180          185          190
Thr Thr Leu Glu His Ser Asp Cys Ala Phe Met Val Asp Asn Glu Ala
          195          200          205
Ile Tyr Asp Ile Cys Arg Arg Asn Leu Asp Ile Glu Arg Pro Thr Tyr
          210          215          220

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Thr Asn Leu Asn Arg Leu Ile Ser Gln Ile Val Ser Ser Ile Thr Ala
225                230                235                240
Ser Leu Arg Phe Asp Gly Ala Leu Asn Val Asp Leu Thr Glu Phe Gln
                245                250                255
Thr Asn Leu Val Pro Tyr Pro Arg Ile His Phe Pro Leu Val Thr Tyr
                260                265                270
Ala Pro Ile Ile Ser Ala Glu Lys Ala Tyr His Glu Gln Leu Ser Val
                275                280                285
Ala Glu Ile Thr Ser Ser Cys Phe Glu Pro Asn Ser Gln Met Val Lys
                290                295                300
Cys Asp Pro Arg His Gly Lys Tyr Met Ala Cys Cys Met Leu Tyr Arg
305                310                315                320
Gly Asp Val Val Pro Lys Asp Val Asn Val Ala Ile Ala Ala Ile Lys
                325                330                335
Thr Lys Arg Thr Ile Gln Phe Val Asp Trp Cys Pro Thr Gly Phe Lys
                340                345                350
Val Gly Ile Asn Tyr Gln Pro Pro Thr Val Val Pro Gly Gly Asp Leu
                355                360                365
Ala Lys Val Gln Arg Ala Val Cys Met Leu Ser Asn Thr Thr Ala Ile
370                375                380
Ala Glu Ala Trp Ala Arg Leu Asp His Lys Phe Asp Leu Met Tyr Ala
385                390                395                400
Lys Arg Ala Phe Val His Trp Tyr Val Gly Glu Gly Met Glu Glu Gly
                405                410                415
Glu Phe Ser Glu Ala Arg Glu Asp Leu Ala Ala Leu Glu Lys Asp Tyr
                420                425                430
Glu Glu Val Gly Thr Asp Ser Phe Glu Glu Glu Asn Glu Gly Glu Glu
                435                440                445
Phe *
449

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<210> 1400
<211> 857
<212> PRT
<213> Homo sapiens

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<400> 1400
Met Asp Glu Asp Ser Ser Leu Arg Asp Tyr Thr Val Ser Leu Asp Ser
1          5          10          15
Asp Met Asp Asp Ala Ser Lys Phe Leu Gln Asp Tyr Asp Ile Arg Thr
                20          25          30
Gly Asn Thr Arg Glu Ala Leu Ser Pro Cys Pro Ser Thr Val Ser Thr
                35          40          45
Lys Ser Gln Pro Gly Ser Ser Ala Ser Ser Ser Ser Gly Val Lys Met
50          55          60
Thr Ser Phe Ala Glu Gln Lys Phe Arg Lys Leu Asn His Thr Asp Gly
65          70          75          80
Lys Ser Ser Gly Ser Ser Ser Gln Lys Thr Thr Pro Glu Gly Ser Glu
                85          90          95
Leu Asn Ile Pro His Val Val Ala Trp Ala Gln Ile Pro Glu Glu Thr
100          105          110
Gly Leu Pro Gln Gly Arg Asp Thr Thr Gln Leu Leu Ala Ser Glu Met
115          120          125
Val His Leu Arg Met Lys Leu Glu Glu Lys Arg Arg Ala Ile Glu Ala
130          135          140
Gln Lys Lys Lys Met Glu Ala Ala Phe Thr Lys Gln Arg Gln Lys Met
145          150          155          160
Gly Arg Thr Ala Phe Leu Thr Val Val Lys Lys Lys Gly Asp Gly Ile
                165          170          175
Ser Pro Leu Arg Glu Glu Ala Ala Gly Ala Glu Asp Glu Lys Val Tyr
                180          185          190

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Thr	Asp	Arg	Ala	Lys	Glu	Lys	Glu	Ser	Gln	Lys	Thr	Asp	Gly	Gln	Arg
	195						200					205			
Ser	Lys	Ser	Leu	Ala	Asp	Ile	Lys	Glu	Ser	Met	Glu	Asn	Pro	Gln	Ala
	210					215					220				
Lys	Trp	Leu	Lys	Ser	Pro	Thr	Thr	Pro	Ile	Asp	Pro	Glu	Lys	Gln	Trp
225					230					235					240
Asn	Leu	Ala	Ser	Pro	Ser	Glu	Glu	Thr	Leu	Asn	Glu	Gly	Glu	Ile	Leu
				245					250					255	
Glu	Tyr	Thr	Lys	Ser	Ile	Glu	Lys	Leu	Asn	Ser	Ser	Leu	His	Phe	Leu
			260					265					270		
Gln	Gln	Glu	Met	Gln	Arg	Leu	Ser	Leu	Gln	Gln	Glu	Met	Leu	Met	Gln
		275					280					285			
Met	Arg	Glu	Gln	Gln	Ser	Trp	Val	Ile	Ser	Pro	Pro	Gln	Pro	Ser	Pro
	290					295				300					
Gln	Lys	Gln	Ile	Arg	Asp	Phe	Lys	Pro	Ser	Lys	Gln	Ala	Gly	Leu	Ser
305					310					315					320
Ser	Ala	Ile	Ala	Pro	Phe	Ser	Ser	Asp	Ser	Pro	Arg	Pro	Thr	His	Pro
				325					330					335	
Ser	Pro	Gln	Ser	Ser	Asn	Arg	Lys	Ser	Ala	Ser	Phe	Ser	Val	Lys	Ser
			340					345					350		
Gln	Arg	Thr	Pro	Arg	Pro	Asn	Glu	Leu	Lys	Ile	Thr	Pro	Leu	Asn	Arg
	355						360					365			
Thr	Leu	Thr	Pro	Pro	Arg	Ser	Val	Asp	Ser	Leu	Pro	Arg	Leu	Arg	Arg
	370					375					380				
Phe	Ser	Pro	Ser	Gln	Val	Pro	Ile	Gln	Thr	Arg	Ser	Phe	Val	Cys	Phe
385					390					395					400
Gly	Asp	Asp	Gly	Glu	Pro	Gln	Leu	Lys	Glu	Ser	Lys	Pro	Lys	Glu	Glu
				405					410					415	
Val	Lys	Lys	Glu	Glu	Leu	Glu	Ser	Lys	Gly	Thr	Leu	Glu	Gln	Arg	Gly
			420					425					430		
His	Asn	Pro	Glu	Glu	Lys	Glu	Ile	Lys	Pro	Phe	Glu	Ser	Thr	Val	Ser
	435						440					445			
Glu	Val	Leu	Ser	Leu	Pro	Val	Thr	Glu	Thr	Val	Cys	Leu	Thr	Pro	Asn
	450					455					460				
Glu	Asp	Gln	Leu	Asn	Gln	Pro	Thr	Glu	Pro	Pro	Pro	Lys	Pro	Val	Phe
465					470					475					480
Pro	Pro	Thr	Ala	Pro	Lys	Asn	Val	Asn	Leu	Ile	Glu	Val	Ser	Leu	Ser
				485					490					495	
Asp	Leu	Lys	Pro	Pro	Glu	Lys	Ala	Asp	Val	Pro	Val	Glu	Lys	Tyr	Asp
			500					505					510		
Gly	Glu	Ser	Asp	Lys	Glu	Gln	Phe	Asp	Asp	Asp	Gln	Lys	Val	Cys	Cys
	515						520					525			
Gly	Phe	Phe	Phe	Lys	Asp	Asp	Gln	Lys	Ala	Glu	Asn	Asp	Met	Ala	Met
	530					535					540				
Lys	Arg	Ala	Ala	Leu	Leu	Glu	Lys	Arg	Leu	Arg	Arg	Glu	Lys	Glu	Thr
545					550					555					560
Gln	Leu	Arg	Lys	Gln	Gln	Leu	Glu	Ala	Glu	Met	Glu	His	Lys	Lys	Glu
				565					570					575	
Glu	Thr	Arg	Arg	Lys	Thr	Glu	Glu	Glu	Arg	Gln	Lys	Lys	Glu	Asp	Glu
			580					585					590		
Arg	Ala	Arg	Arg	Glu	Phe	Ile	Arg	Gln	Glu	Tyr	Met	Arg	Arg	Lys	Gln
	595						600					605			
Leu	Lys	Leu	Met	Glu	Asp	Met	Asp	Thr	Val	Ile	Lys	Pro	Arg	Pro	Gln
	610					615					620				
Val	Val	Lys	Gln	Lys	Lys	Gln	Arg	Pro	Lys	Ser	Ile	His	Arg	Asp	His
625					630					635					640
Ile	Glu	Ser	Pro	Lys	Thr	Pro	Ile	Lys	Gly	Pro	Pro	Val	Ser	Ser	Leu
				645					650					655	
Ser	Leu	Ala	Ser	Leu	Asn	Thr	Gly	Asp	Asn	Glu	Ser	Val	His	Ser	Gly
			660				665					670			
Lys	Arg	Thr	Pro	Arg	Ser	Glu	Ser	Val	Glu	Gly	Phe	Leu	Ser	Pro	Ser
	675						680					685			
Arg	Cys	Gly	Ser	Arg	Asn	Gly	Glu	Lys	Asp	Trp	Glu	Asn	Ala	Ser	Thr
	690					695					700				

```

Thr Ser Ser Val Ala Ser Gly Thr Glu Tyr Thr Gly Pro Lys Leu Tyr
705              710              715              720
Lys Glu Pro Ser Ala Lys Ser Asn Lys His Ile Ile Gln Asn Ala Leu
              725              730              735
Ala His Cys Cys Leu Ala Gly Lys Val Asn Glu Gly Gln Lys Lys Lys
              740              745              750
Ile Leu Glu Glu Met Glu Lys Ser Asp Ala Asn Asn Phe Leu Ile Leu
              755              760              765
Phe Arg Asp Ser Gly Cys Gln Phe Arg Ser Leu Tyr Thr Tyr Cys Pro
              770              775              780
Glu Thr Glu Glu Ile Asn Lys Leu Thr Gly Ile Gly Pro Lys Ser Ile
785              790              795              800
Thr Lys Lys Met Ile Glu Gly Leu Tyr Lys Tyr Asn Ser Asp Arg Lys
              805              810              815
Gln Phe Ser His Ile Pro Ala Lys Thr Leu Ser Ala Ser Val Asp Ala
              820              825              830
Ile Thr Ile His Ser His Leu Trp Gln Thr Lys Arg Pro Val Thr Pro
              835              840              845
Lys Lys Leu Leu Pro Thr Lys Ala *
850              855 856

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<210> 1401  
 <211> 294  
 <212> PRT  
 <213> Homo sapiens

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<400> 1401
Met Gly Phe Pro Ala Ala Ala Leu Leu Cys Ala Leu Cys Cys Gly Leu
1              5              10              15
Leu Ala Pro Ala Ala Arg Ala Gly Tyr Ser Glu Glu Arg Cys Ser Trp
              20              25              30
Arg Gly Ser Gly Leu Thr Gln Glu Pro Gly Ser Val Gly Gln Leu Ala
              35              40              45
Leu Ala Cys Ala Glu Gly Ala Val Glu Trp Leu Tyr Pro Ala Gly Ala
              50              55              60
Leu Arg Leu Thr Leu Gly Gly Pro Asp Pro Arg Ala Arg Pro Gly Ile
              65              70              75              80
Ala Cys Leu Arg Pro Val Arg Pro Phe Ala Gly Ala Gln Val Phe Ala
              85              90              95
Glu Arg Ala Gly Gly Ala Leu Glu Leu Leu Ala Glu Gly Pro Gly
              100             105             110
Pro Ala Gly Gly Arg Cys Val Arg Trp Gly Pro Arg Glu Arg Arg Ala
              115             120             125
Leu Phe Leu Gln Ala Thr Pro His Gln Asp Ile Ser Arg Arg Val Ala
              130             135             140
Ala Phe Arg Phe Glu Leu Arg Glu Asp Gly Arg Pro Glu Leu Pro Pro
145             150             155             160
Gln Ala His Gly Leu Gly Val Asp Gly Ala Cys Arg Pro Cys Ser Asp
              165             170             175
Ala Glu Leu Leu Leu Ala Ala Cys Thr Ser Asp Phe Val Ile His Gly
              180             185             190
Ile Ile His Gly Val Thr His Asp Val Glu Leu Gln Glu Ser Val Ile
              195             200             205
Thr Val Val Ala Ala Arg Val Leu Arg Gln Thr Pro Pro Leu Phe Gln
              210             215             220
Ala Gly Arg Ser Gly Asp Gln Gly Leu Thr Ser Ile Arg Thr Pro Leu
225             230             235             240
Arg Cys Gly Val His Pro Gly Pro Gly Thr Phe Leu Phe Met Gly Trp
              245             250             255
Ser Arg Phe Gly Glu Ala Arg Leu Gly Cys Ala Pro Arg Phe Gln Glu
              260             265             270

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Phe Arg Arg Ala Tyr Glu Ala Ala Arg Ala Ala His Leu His Pro Cys  
 275 280 285  
 Glu Val Ala Leu His \*  
 290 293

<210> 1402  
 <211> 371  
 <212> PRT  
 <213> Homo sapiens

<400> 1402  
 Met Ser Ala Gln Ala Gln Met Arg Ala Leu Leu Asp Gln Leu Met Gly  
 1 5 10 15  
 Thr Ala Arg Asp Asp Glu Thr Arg Gln Arg Val Lys Phe Thr Asp Asp  
 20 25 30  
 Arg Val Cys Lys Ser His Leu Leu Asp Cys Cys Pro His Asp Ile Leu  
 35 40 45  
 Ala Gly Thr Arg Met Asp Leu Gly Glu Cys Thr Lys Ile His Asp Leu  
 50 55 60  
 Ala Leu Arg Ala Asp Tyr Glu Ile Ala Ser Lys Glu Arg Asp Leu Phe  
 65 70 75 80  
 Phe Glu Leu Asp Ala Met Asp His Leu Glu Ser Phe Ile Ala Glu Cys  
 85 90 95  
 Asp Arg Arg Thr Glu Leu Ala Lys Lys Arg Leu Ala Glu Thr Gln Glu  
 100 105 110  
 Glu Ile Ser Ala Glu Val Ser Ala Lys Ala Glu Lys Val His Glu Leu  
 115 120 125  
 Asn Glu Glu Ile Gly Lys Leu Leu Ala Lys Ala Glu Gln Leu Gly Ala  
 130 135 140  
 Glu Gly Asn Val Asp Glu Ser Gln Lys Ile Leu Met Glu Val Glu Lys  
 145 150 155 160  
 Val Arg Ala Lys Lys Lys Glu Ala Glu Glu Glu Tyr Arg Asn Ser Met  
 165 170 175  
 Pro Ala Ser Ser Phe Gln Gln Gln Lys Leu Arg Val Cys Glu Val Cys  
 180 185 190  
 Ser Ala Tyr Leu Gly Leu His Asp Asn Asp Arg Arg Leu Ala Asp His  
 195 200 205  
 Phe Gly Gly Lys Leu His Leu Gly Phe Ile Gln Ile Arg Glu Lys Leu  
 210 215 220  
 Asp Gln Leu Arg Lys Thr Val Ala Glu Lys Gln Glu Lys Arg Asn Gln  
 225 230 235 240  
 Asp Arg Leu Arg Arg Arg Glu Glu Arg Glu Arg Glu Arg Leu Ser  
 245 250 255  
 Arg Arg Ser Gly Ser Arg Thr Arg Asp Arg Arg Arg Ser Arg Ser Arg  
 260 265 270  
 Asp Arg Arg Arg Arg Arg Ser Arg Ser Thr Ser Arg Glu Arg Arg Lys  
 275 280 285  
 Leu Ser Arg Ser Arg Ser Arg Asp Arg His Arg Arg His Arg Ser Arg  
 290 295 300  
 Ser Arg Ser His Ser Arg Gly His Arg Arg Ala Ser Arg Asp Arg Ser  
 305 310 315 320  
 Ala Lys Tyr Lys Phe Ser Arg Glu Arg Ala Ser Arg Glu Glu Ser Trp  
 325 330 335  
 Glu Ser Gly Arg Ser Glu Arg Gly Pro Pro Asp Trp Arg Leu Glu Ser  
 340 345 350  
 Ser Asn Gly Lys Met Ala Ser Arg Arg Ser Glu Glu Lys Glu Ala Gly  
 355 360 365  
 Glu Ile \*  
 370

<210> 1403  
 <211> 312  
 <212> PRT  
 <213> Homo sapiens

<400> 1403  
 Met Ser Ala Gln Ala Gln Met Arg Ala Leu Leu Asp Gln Leu Met Gly  
 1 5 10 15  
 Thr Ala Arg Asp Asp Glu Thr Arg Gln Arg Val Lys Phe Thr Asp Asp  
 20 25 30  
 Arg Val Cys Lys Ser His Leu Leu Asp Cys Cys Pro His Asp Ile Leu  
 35 40 45  
 Ala Gly Thr Arg Met Asp Leu Gly Glu Cys Thr Lys Ile His Asp Leu  
 50 55 60  
 Ala Leu Arg Ala Asp Tyr Glu Ile Ala Ser Lys Glu Arg Asp Leu Phe  
 65 70 75 80  
 Phe Glu Leu Asp Ala Met Asp His Leu Glu Ser Phe Ile Ala Glu Cys  
 85 90 95  
 Asp Arg Arg Thr Glu Leu Ala Lys Lys Arg Leu Ala Glu Thr Gln Glu  
 100 105 110  
 Glu Ile Ser Ala Glu Val Ser Ala Lys Ala Glu Lys Val His Glu Leu  
 115 120 125  
 Asn Glu Glu Ile Gly Lys Leu Leu Ala Lys Ala Glu Gln Leu Gly Ala  
 130 135 140  
 Glu Gly Asn Val Asp Glu Ser Gln Lys Ile Leu Met Glu Val Glu Lys  
 145 150 155 160  
 Val Arg Ala Lys Lys Lys Glu Ala Glu Lys Thr Val Ala Glu Lys Gln  
 165 170 175  
 Glu Lys Arg Asn Gln Asp Arg Leu Arg Arg Arg Glu Glu Arg Glu Arg  
 180 185 190  
 Glu Glu Arg Leu Ser Arg Arg Ser Gly Ser Arg Thr Arg Asp Arg Arg  
 195 200 205  
 Arg Ser Arg Ser Arg Asp Arg Arg Arg Arg Arg Ser Arg Ser Thr Ser  
 210 215 220  
 Arg Glu Arg Arg Lys Leu Ser Arg Ser Arg Ser Arg Asp Arg His Arg  
 225 230 235 240  
 Arg His Arg Ser Arg Ser Arg Ser His Ser Arg Gly His Arg Arg Ala  
 245 250 255  
 Ser Arg Asp Arg Ser Ala Lys Tyr Lys Phe Ser Arg Glu Arg Ala Ser  
 260 265 270  
 Arg Glu Glu Ser Trp Glu Ser Gly Arg Ser Glu Arg Gly Pro Pro Asp  
 275 280 285  
 Trp Arg Leu Glu Ser Ser Asn Gly Lys Met Ala Ser Arg Arg Ser Glu  
 290 295 300  
 Glu Lys Glu Ala Gly Glu Ile \*  
 305 310 311

<210> 1404  
 <211> 1063  
 <212> PRT  
 <213> Homo sapiens

<400> 1404  
 Met Arg Leu Leu Ser Met Pro Gly Ala Gln Gly Ala Ala Ala Gly  
 1 5 10 15  
 Ser Glu Pro Pro Pro Ala Thr Thr Ser Pro Glu Gly Gln Pro Lys Val  
 20 25 30  
 His Arg Ala Arg Lys Thr Met Ser Lys Pro Gly Asn Gly Gln Pro Pro  
 35 40 45

Val	Pro	Glu	Lys	Arg	Pro	Pro	Glu	Ile	Gln	His	Phe	Arg	Met	Ser	Asp
50						55					60				
Asp	Val	His	Ser	Leu	Gly	Lys	Val	Thr	Ser	Asp	Leu	Ala	Lys	Arg	Arg
65					70					75					80
Lys	Leu	Asn	Ser	Gly	Gly	Gly	Leu	Ser	Glu	Glu	Leu	Gly	Ser	Ala	Arg
				85					90					95	
Arg	Ser	Gly	Glu	Val	Thr	Leu	Thr	Lys	Gly	Asp	Pro	Gly	Ser	Leu	Glu
			100					105					110		
Glu	Trp	Glu	Thr	Val	Val	Gly	Asp	Phe	Ser	Leu	Tyr	Tyr	Asp	Ser	
		115					120				125				
Tyr	Ser	Val	Asp	Glu	Arg	Val	Asp	Ser	Asp	Ser	Lys	Ser	Glu	Val	Glu
130						135					140				
Ala	Leu	Thr	Glu	Gln	Leu	Ser	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu
145					150					155					160
Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Asp
				165					170					175	
Glu	Glu	Ser	Gly	Asn	Gln	Ser	Asp	Arg	Ser	Gly	Ser	Ser	Gly	Arg	Arg
			180					185					190		
Lys	Ala	Lys	Lys	Lys	Trp	Arg	Lys	Asp	Ser	Pro	Trp	Val	Lys	Pro	Ser
	195						200					205			
Arg	Lys	Arg	Arg	Lys	Arg	Glu	Pro	Pro	Arg	Ala	Lys	Glu	Pro	Arg	Gly
210						215					220				
Val	Asn	Gly	Val	Gly	Ser	Ser	Gly	Pro	Ser	Glu	Tyr	Met	Glu	Val	Pro
225					230					235					240
Leu	Gly	Ser	Leu	Glu	Leu	Pro	Ser	Glu	Gly	Thr	Leu	Ser	Pro	Asn	His
				245					250					255	
Ala	Gly	Val	Ser	Asn	Asp	Thr	Ser	Ser	Leu	Glu	Thr	Glu	Arg	Gly	Phe
			260					265					270		
Glu	Glu	Leu	Pro	Leu	Cys	Ser	Cys	Arg	Met	Glu	Ala	Pro	Lys	Ile	Asp
		275					280					285			
Arg	Ile	Ser	Glu	Arg	Ala	Gly	His	Lys	Cys	Met	Ala	Thr	Glu	Ser	Val
290						295					300				
Asp	Gly	Glu	Leu	Ser	Gly	Cys	Asn	Ala	Ala	Ile	Leu	Lys	Arg	Glu	Thr
305					310					315					320
Met	Arg	Pro	Ser	Ser	Arg	Val	Ala	Leu	Met	Val	Leu	Cys	Glu	Thr	His
				325					330					335	
Arg	Ala	Arg	Met	Val	Lys	His	His	Cys	Cys	Pro	Gly	Cys	Gly	Tyr	Phe
			340					345					350		
Cys	Thr	Ala	Gly	Thr	Phe	Leu	Glu	Cys	His	Pro	Asp	Phe	Arg	Val	Ala
		355					360					365			
His	Arg	Phe	His	Lys	Ala	Cys	Val	Ser	Gln	Leu	Asn	Gly	Met	Val	Phe
370						375					380				
Cys	Pro	His	Cys	Gly	Glu	Asp	Ala	Ser	Glu	Ala	Gln	Glu	Val	Thr	Ile
385					390					395					400
Pro	Arg	Gly	Asp	Gly	Val	Thr	Pro	Pro	Ala	Gly	Thr	Ala	Ala	Pro	Ala
				405					410					415	
Pro	Pro	Pro	Leu	Ser	Gln	Asp	Val	Pro	Gly	Arg	Ala	Asp	Thr	Ser	Gln
			420					425					430		
Pro	Ser	Ala	Arg	Met	Arg	Gly	His	Gly	Glu	Pro	Arg	Arg	Pro	Pro	Cys
		435				440						445			
Asp	Pro	Leu	Ala	Asp	Thr	Ile	Asp	Ser	Ser	Gly	Pro	Ser	Leu	Thr	Leu
450						455					460				
Pro	Asn	Gly	Gly	Cys	Leu	Ser	Ala	Val	Gly	Leu	Pro	Leu	Gly	Pro	Gly
465					470					475					480
Arg	Glu	Ala	Leu	Glu	Lys	Ala	Leu	Val	Ile	Gln	Glu	Ser	Glu	Arg	Arg
				485					490					495	
Lys	Lys	Leu	Arg	Phe	His	Pro	Arg	Gln	Leu	Tyr	Leu	Ser	Val	Lys	Gln
			500					505					510		
Gly	Glu	Leu	Gln	Lys	Val	Ile	Leu	Met	Leu	Leu	Asp	Asn	Leu	Asp	Pro
		515					520					525			
Asn	Phe	Gln	Ser	Asp	Gln	Gln	Ser	Lys	Arg	Thr	Pro	Leu	His	Ala	Ala
530						535					540				
Ala	Gln	Lys	Gly	Ser	Val	Glu	Ile	Cys	His	Val	Leu	Leu	Gln	Ala	Gly
545					550					555					560

Ala	Asn	Ile	Asn	Ala	Val	Asp	Lys	Gln	Gln	Arg	Thr	Pro	Leu	Met	Glu
			565						570					575	
Ala	Val	Val	Asn	Asn	His	Leu	Glu	Val	Ala	Arg	Tyr	Met	Val	Gln	Arg
			580						585				590		
Gly	Gly	Cys	Val	Tyr	Ser	Lys	Glu	Glu	Asp	Gly	Ser	Thr	Cys	Leu	His
		595					600					605			
His	Ala	Ala	Lys	Ile	Gly	Asn	Leu	Glu	Met	Val	Ser	Leu	Leu	Leu	Ser
	610					615					620				
Thr	Gly	Gln	Val	Asp	Val	Asn	Ala	Gln	Asp	Ser	Gly	Gly	Trp	Thr	Pro
625					630					635				640	
Ile	Ile	Trp	Ala	Ala	Glu	His	Lys	His	Ile	Glu	Val	Ile	Arg	Met	Leu
			645						650					655	
Leu	Thr	Arg	Gly	Ala	Asp	Val	Thr	Leu	Thr	Asp	Asn	Glu	Glu	Asn	Ile
			660					665				670			
Cys	Leu	His	Trp	Ala	Ser	Phe	Thr	Gly	Ser	Ala	Ala	Ile	Ala	Glu	Val
	675					680						685			
Leu	Leu	Asn	Ala	Arg	Cys	Asp	Leu	His	Ala	Val	Asn	Tyr	His	Gly	Asp
	690					695					700				
Thr	Pro	Leu	His	Ile	Ala	Ala	Arg	Glu	Ser	Tyr	His	Asp	Cys	Val	Leu
705					710					715				720	
Leu	Phe	Leu	Ser	Arg	Gly	Ala	Asn	Pro	Glu	Leu	Arg	Asn	Lys	Glu	Gly
			725						730					735	
Asp	Thr	Ala	Trp	Asp	Leu	Thr	Pro	Glu	Arg	Ser	Asp	Val	Trp	Phe	Ala
			740					745					750		
Leu	Gln	Leu	Asn	Arg	Lys	Leu	Arg	Leu	Gly	Val	Gly	Asn	Arg	Ala	Ile
	755					760						765			
Arg	Thr	Glu	Lys	Ile	Ile	Cys	Arg	Asp	Val	Ala	Arg	Gly	Tyr	Glu	Asn
	770					775					780				
Val	Pro	Ile	Pro	Cys	Val	Asn	Gly	Val	Asp	Gly	Glu	Pro	Cys	Pro	Glu
785					790					795				800	
Asp	Tyr	Lys	Tyr	Ile	Ser	Glu	Asn	Cys	Glu	Thr	Ser	Thr	Met	Asn	Ile
			805						810					815	
Asp	Arg	Asn	Ile	Thr	His	Leu	Gln	His	Cys	Thr	Cys	Val	Asp	Asp	Cys
			820					825					830		
Ser	Ser	Ser	Asn	Cys	Leu	Cys	Gly	Gln	Leu	Ser	Ile	Arg	Cys	Trp	Tyr
	835						840					845			
Asp	Lys	Asp	Gly	Arg	Leu	Leu	Gln	Glu	Phe	Asn	Lys	Ile	Glu	Pro	Pro
	850					855					860				
Leu	Ile	Phe	Glu	Cys	Asn	Gln	Ala	Cys	Ser	Cys	Trp	Arg	Asn	Cys	Lys
865					870					875				880	
Asn	Arg	Val	Val	Gln	Ser	Gly	Ile	Lys	Val	Arg	Leu	Gln	Leu	Tyr	Arg
			885						890					895	
Thr	Ala	Lys	Met	Gly	Trp	Gly	Val	Arg	Ala	Leu	Gln	Thr	Ile	Pro	Gln
			900					905					910		
Gly	Thr	Phe	Ile	Cys	Glu	Tyr	Val	Gly	Glu	Leu	Ile	Ser	Asp	Ala	Glu
	915					920						925			
Ala	Asp	Val	Arg	Glu	Asp	Asp	Ser	Tyr	Leu	Phe	Asp	Leu	Asp	Asn	Lys
	930					935					940				
Asp	Gly	Glu	Val	Tyr	Cys	Ile	Asp	Ala	Arg	Tyr	Tyr	Gly	Asn	Ile	Ser
945					950					955				960	
Arg	Leu	Leu	Cys	His	Leu	Cys	Asp	Pro	Asn	Ile	Ile	Pro	Val	Arg	Val
			965						970					975	
Phe	Met	Leu	His	Gln	Asp	Leu	Arg	Phe	Pro	Arg	Ile	Ala	Phe	Phe	Ser
			980					985					990		
Ser	Arg	Asp	Ile	Arg	Thr	Gly	Glu	Glu	Leu	Gly	Phe	Asp	Tyr	Gly	Asp
		995				1000						1005			
Arg	Phe	Trp	Asp	Ile	Lys	Ser	Lys	Tyr	Phe	Thr	Cys	Gln	Cys	Gly	Ser
	1010					1015					1020				
Glu	Lys	Cys	Lys	His	Ser	Ala	Glu	Ala	Ile	Ala	Leu	Glu	Gln	Ser	Arg
1025					1030					1035				1040	
Leu	Ala	Arg	Leu	Asp	Pro	His	Pro	Glu	Leu	Leu	Pro	Glu	Leu	Gly	Ser
			1045					1050					1055		
Leu	Pro	Pro	Val	Asn	Thr	*									
			1060		1062										

<210> 1405  
 <211> 351  
 <212> PRT  
 <213> Homo sapiens

<400> 1405  
 Met Glu His Val Ser Pro Ala Leu Pro Val Phe Leu Val Ser Thr Tyr  
 1 5 10 15  
 Thr Leu Gly Thr Leu Cys Pro Ile Ser Pro Asp Gly Arg Leu Ile Val  
 20 25 30  
 Ser Cys Ser Glu Asp Lys Thr Ile Lys Ile Trp Asp Thr Thr Asn Lys  
 35 40 45  
 Gln Cys Val Asn Asn Phe Ser Asp Ser Val Gly Phe Ala Asn Phe Val  
 50 55 60  
 Asp Phe Asn Pro Ser Gly Thr Cys Ile Ala Ser Ala Gly Ser Asp Gln  
 65 70 75 80  
 Thr Val Lys Val Trp Asp Val Arg Val Asn Lys Leu Leu Gln His Tyr  
 85 90 95  
 Gln Val His Ser Gly Gly Val Asn Cys Ile Ser Phe His Pro Ser Gly  
 100 105 110  
 Asn Tyr Leu Ile Thr Ala Ser Ser Asp Gly Thr Leu Lys Ile Leu Asp  
 115 120 125  
 Leu Leu Glu Gly Arg Leu Ile Tyr Thr Leu Gln Gly His Thr Gly Pro  
 130 135 140  
 Val Phe Thr Val Ser Phe Ser Lys Gly Gly Glu Leu Phe Ala Ser Gly  
 145 150 155 160  
 Gly Ala Asp Thr Gln Val Leu Leu Trp Arg Thr Asn Phe Asp Glu Leu  
 165 170 175  
 His Cys Lys Gly Leu Thr Lys Arg Asn Leu Lys Arg Leu His Phe Asp  
 180 185 190  
 Ser Pro Pro His Leu Leu Asp Ile Tyr Pro Arg Thr Pro His Pro His  
 195 200 205  
 Glu Glu Lys Val Glu Thr Val Glu Ile Asn Pro Lys Leu Glu Val Ile  
 210 215 220  
 Asp Leu Gln Ile Ser Thr Pro Pro Val Met Asp Ile Leu Ser Phe Asp  
 225 230 235 240  
 Ser Thr Thr Thr Thr Glu Thr Ser Gly Arg Thr Leu Pro Asp Lys Gly  
 245 250 255  
 Glu Glu Ala Cys Gly Tyr Phe Leu Asn Pro Ser Leu Met Ser Pro Glu  
 260 265 270  
 Cys Leu Pro Thr Thr Thr Lys Lys Lys Thr Glu Asp Met Ser Asp Leu  
 275 280 285  
 Pro Cys Glu Ser Gln Arg Ser Ile Pro Leu Ala Val Thr Asp Ala Leu  
 290 295 300  
 Glu His Ile Met Glu Gln Leu Asn Val Leu Thr Gln Thr Val Ser Ile  
 305 310 315 320  
 Leu Glu Gln Arg Leu Thr Leu Thr Glu Asp Lys Leu Lys Asp Cys Leu  
 325 330 335  
 Glu Asn Gln Gln Lys Leu Phe Ser Ala Val Gln Gln Lys Ser \*  
 340 345 350

<210> 1406  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 1406

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Met Ala Leu Ser Ile Leu Asp Ile Lys Met Ser Pro Ser Trp Tyr Phe
 1          5          10          15
His Met Ala Ile Gly Ile Ile Asn Trp Asn Thr Thr Ala Gly Leu Ser
          20          25          30
Gly Thr Leu Tyr Pro Lys Val Pro Gln Lys Tyr Ile Leu Phe Asp Ser
          35          40          45
Val Ile Leu Leu Leu Gly Met Leu Arg Lys Ile Arg Gln Val Cys Gln
          50          55          60
Asn Val Tyr Met Lys Gly Cys Ser Pro Ile Thr Leu Phe Lys Ile Val
          65          70          75          80
His Tyr Trp Pro Gly Ala Val Ala His Ala Tyr Asn Pro Ser Thr Leu
          85          90          95
Gly Gly Gln Val Gly Gly Lys Ser Pro Glu Val Arg Ser Ser Arg Pro
          100          105          110
Ala Trp Thr Thr Trp *
          115          117

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<210> 1407
<211> 431
<212> PRT
<213> Homo sapiens

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```

<400> 1407
Met Gln Lys His His Pro Gln Ser Ile Glu Glu Ala Val Ala Leu Val
 1          5          10          15
Glu His Leu Gln Arg Glu Ser Gly Gln Thr Trp Asn Gly Val Ala Val
          20          25          30
His Glu Leu Gly Lys Glu Ala Val Leu Leu Gly Glu Thr Ala Glu Ala
          35          40          45
Ser Ser Phe Gly Leu Lys Pro Thr Glu Ser Gln Pro Val Gly Val Ser
          50          55          60
Gln Asp Glu Glu Phe Trp Asn Thr Tyr Glu Gly Leu Gln Glu Gln Leu
          65          70          75          80
Ser Arg Asn Thr His Lys Glu Thr Glu Pro Val Tyr Glu Arg Ala Val
          85          90          95
Pro Thr Gln Gln Ile Leu Ala Phe Pro Glu Gln Thr Asn Thr Lys Asp
          100          105          110
Trp Thr Val Thr Pro Glu His Val Leu Pro Glu Ser Gln Ser Leu Leu
          115          120          125
Thr Phe Glu Glu Val Ala Met Tyr Phe Ser Gln Glu Glu Trp Glu Leu
          130          135          140
Leu Asp Pro Thr Gln Lys Ala Leu Tyr Asn Asp Val Met Gln Glu Asn
          145          150          155          160
Tyr Glu Thr Val Ile Ser Leu Ala Leu Phe Val Leu Pro Lys Pro Lys
          165          170          175
Val Ile Ser Cys Leu Glu Gln Gly Glu Glu Pro Trp Val Gln Val Ser
          180          185          190
Pro Glu Phe Lys Asp Ser Ala Gly Lys Ser Pro Thr Gly Leu Lys Leu
          195          200          205
Lys Asn Asp Thr Glu Asn His Gln Pro Ala Ser Leu Ser Asp Leu Glu
          210          215          220
Ile Gln Ala Ser Ala Gly Val Ile Ser Lys Lys Ala Lys Val Lys Val
          225          230          235          240
Pro Gln Lys Thr Ala Gly Lys Glu Asn His Phe Asp Met His Arg Val
          245          250          255
Gly Lys Trp His Gln Asp Phe Pro Val Lys Lys Arg Lys Lys Leu Ser
          260          265          270
Thr Trp Lys Gln Glu Leu Leu Lys Leu Met Asp Arg His Lys Lys Asp
          275          280          285
Cys Ala Arg Glu Lys Pro Phe Lys Cys Gln Glu Cys Gly Lys Thr Phe
          290          295          300

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Arg Val Ser Ser Asp Leu Ile Lys His Gln Arg Ile His Thr Glu Glu
305          310          315          320
Lys Pro Tyr Lys Cys Gln Gln Cys Asp Lys Arg Phe Arg Trp Ser Ser
          325          330          335
Asp Leu Asn Lys His Leu Thr Thr His Gln Gly Ile Lys Pro Tyr Lys
          340          345          350
Cys Ser Trp Cys Gly Lys Ser Phe Ser Gln Asn Thr Asn Leu His Thr
          355          360          365
His Gln Arg Thr His Thr Gly Glu Lys Pro Phe Thr Cys His Glu Cys
          370          375          380
Gly Lys Lys Phe Ser Gln Asn Ser His Leu Ile Lys His Arg Arg Thr
385          390          395          400
His Thr Gly Glu Gln Pro Tyr Thr Cys Ser Ile Cys Arg Arg Asn Phe
          405          410          415
Ser Arg Arg Ser Ser Leu Leu Arg His Gln Lys Leu His Leu *
          420          425          430

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<210> 1408
<211> 698
<212> PRT
<213> Homo sapiens

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```

<400> 1408
Met Ala Gly Leu Gly Pro Gly Val Gly Asp Ser Glu Gly Gly Pro Arg
1          5          10          15
Pro Leu Phe Cys Arg Lys Gly Ala Leu Arg Gln Lys Val Val His Glu
          20          25          30
Val Lys Ser His Lys Phe Thr Ala Arg Phe Phe Lys Gln Pro Thr Phe
          35          40          45
Cys Ser His Cys Thr Asp Phe Ile Trp Gly Ile Gly Lys Gln Gly Leu
          50          55          60
Gln Cys Gln Val Cys Ser Phe Val Val His Arg Arg Cys His Glu Phe
          65          70          75          80
Val Thr Phe Glu Cys Pro Gly Ala Gly Lys Gly Pro Gln Thr Asp Asp
          85          90          95
Pro Arg Asn Lys His Lys Phe Arg Leu His Ser Tyr Ser Ser Pro Thr
          100          105          110
Phe Cys Asp His Cys Gly Ser Leu Leu Tyr Gly Leu Val His Gln Gly
          115          120          125
Met Lys Cys Ser Cys Cys Glu Met Asn Val His Arg Arg Cys Val Arg
          130          135          140
Ser Val Pro Ser Leu Cys Gly Val Asp His Thr Glu Arg Arg Gly Arg
          145          150          155          160
Leu Gln Leu Glu Ile Arg Ala Pro Thr Ala Asp Glu Ile His Val Thr
          165          170          175
Val Gly Glu Ala Arg Asn Leu Ile Pro Met Asp Pro Asn Gly Leu Ser
          180          185          190
Asp Pro Tyr Val Lys Leu Lys Leu Ile Pro Asp Pro Arg Asn Leu Thr
          195          200          205
Lys Gln Lys Thr Arg Thr Val Lys Ala Thr Leu Asn Pro Val Trp Asn
          210          215          220
Glu Thr Phe Val Phe Asn Leu Lys Pro Gly Asp Val Glu Arg Arg Leu
          225          230          235          240
Ser Val Glu Val Trp Asp Trp Asp Arg Thr Ser Arg Asn Asp Phe Met
          245          250          255
Gly Ala Met Ser Phe Gly Val Ser Glu Leu Leu Lys Ala Pro Val Asp
          260          265          270
Gly Trp Tyr Lys Leu Leu Asn Gln Glu Glu Gly Glu Tyr Tyr Asn Val
          275          280          285
Pro Val Ala Asp Ala Asp Asn Cys Ser Leu Leu Gln Lys Phe Glu Ala
          290          295          300

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Cys Asn Tyr Pro Leu Glu Leu Tyr Glu Arg Val Arg Met Gly Pro Ser  
 305 310 315 320  
 Ser Ser Pro Ile Pro Ser Pro Ser Pro Ser Pro Thr Asp Pro Lys Arg  
 325 330 335  
 Cys Phe Phe Gly Ala Ser Pro Gly Arg Leu His Ile Ser Asp Phe Ser  
 340 345 350  
 Phe Leu Met Val Leu Gly Lys Gly Ser Phe Gly Lys Val Met Leu Ala  
 355 360 365  
 Glu Arg Arg Gly Ser Asp Glu Leu Tyr Ala Ile Lys Ile Leu Lys Lys  
 370 375 380  
 Asp Val Ile Val Gln Asp Asp Asp Val Asp Cys Thr Leu Val Glu Lys  
 385 390 395 400  
 Arg Val Leu Ala Leu Gly Gly Arg Gly Pro Gly Gly Arg Pro His Phe  
 405 410 415  
 Leu Thr Gln Leu His Ser Thr Phe Gln Thr Pro Asp Arg Leu Tyr Phe  
 420 425 430  
 Val Met Glu Tyr Val Thr Gly Gly Asp Leu Met Tyr His Ile Gln Gln  
 435 440 445  
 Leu Gly Lys Phe Lys Glu Pro His Ala Ala Phe Tyr Ala Ala Glu Ile  
 450 455 460  
 Ala Ile Gly Leu Phe Phe Leu His Asn Gln Gly Ile Ile Tyr Arg Asp  
 465 470 475 480  
 Leu Lys Leu Asp Asn Val Met Leu Asp Ala Glu Gly His Ile Lys Ile  
 485 490 495  
 Thr Asp Phe Gly Met Cys Lys Glu Asn Val Phe Pro Gly Thr Thr Thr  
 500 505 510  
 Arg Thr Phe Cys Gly Thr Pro Asp Tyr Ile Ala Pro Glu Ile Ile Ala  
 515 520 525  
 Tyr Gln Pro Tyr Gly Lys Ser Val Asp Trp Trp Ser Phe Gly Val Leu  
 530 535 540  
 Leu Tyr Glu Met Leu Ala Gly Gln Pro Pro Phe Asp Gly Glu Asp Glu  
 545 550 555 560  
 Glu Glu Leu Phe Gln Ala Ile Met Glu Gln Thr Val Thr Tyr Pro Lys  
 565 570 575  
 Ser Leu Ser Arg Glu Ala Val Ala Ile Cys Lys Gly Phe Leu Thr Lys  
 580 585 590  
 His Pro Gly Lys Arg Leu Gly Ser Gly Pro Asp Gly Glu Pro Thr Ile  
 595 600 605  
 Arg Ala His Gly Phe Phe Arg Trp Ile Asp Trp Glu Arg Leu Glu Arg  
 610 615 620  
 Leu Glu Ile Pro Pro Pro Phe Arg Pro Arg Pro Cys Gly Arg Ser Gly  
 625 630 635 640  
 Glu Asn Phe Asp Lys Phe Phe Thr Arg Ala Ala Pro Ala Leu Thr Pro  
 645 650 655  
 Pro Asp Arg Leu Val Leu Ala Ser Ile Asp Gln Ala Asp Phe Gln Gly  
 660 665 670  
 Phe Thr Tyr Val Asn Pro Asp Phe Val His Pro Asp Ala Arg Ser Pro  
 675 680 685  
 Thr Ser Pro Val Pro Val Pro Val Met \*  
 690 695 697

<210> 1409  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 1409  
 Met Leu Trp Gly Phe Ser Val Phe Arg Arg Ser Trp Ile Leu Asn Cys  
 1 5 10 15  
 Trp Leu Ser Ser Ser Gln Val Gly Ile Ser Ala Ala Cys Lys Phe Ser  
 20 25 30



Thr Leu Thr His Thr His Thr His Thr His Thr His Thr Arg His Ala  
           35                          40                          45  
 Pro Phe Cys Gly Thr Cys Leu Tyr Tyr \*  
       50                          55                          57

<210> 1410  
 <211> 200  
 <212> PRT  
 <213> Homo sapiens

<400> 1410  
 Met Lys Thr Phe Ile Ile Gly Ile Ser Gly Val Thr Asn Ser Gly Lys  
   1                  5                  10                  15  
 Thr Thr Leu Ala Lys Asn Leu Gln Lys His Leu Pro Asn Cys Ser Val  
           20                  25                  30  
 Ile Ser Gln Asp Asp Phe Phe Lys Pro Glu Ser Glu Ile Glu Thr Asp  
       35                  40                  45  
 Lys Asn Gly Phe Leu Gln Tyr Asp Val Leu Glu Ala Leu Asn Met Glu  
       50                  55                  60  
 Lys Met Met Ser Ala Ile Ser Cys Trp Met Glu Ser Ala Arg His Ser  
       65                  70                  75                  80  
 Val Val Ser Thr Asp Gln Glu Ser Ala Glu Glu Ile Pro Ile Leu Ile  
           85                  90                  95  
 Ile Glu Gly Phe Leu Leu Phe Asn Tyr Lys Pro Leu Asp Thr Ile Trp  
           100                  105                  110  
 Asn Arg Ser Tyr Phe Leu Thr Ile Pro Tyr Glu Glu Cys Lys Arg Arg  
       115                  120                  125  
 Arg Ser Thr Arg Val Tyr Gln Pro Pro Asp Ser Pro Gly Tyr Phe Asp  
       130                  135                  140  
 Gly His Val Trp Pro Met Tyr Leu Lys Tyr Arg Gln Glu Met Gln Asp  
       145                  150                  155                  160  
 Ile Thr Trp Glu Val Val Tyr Leu Asp Gly Thr Lys Ser Glu Glu Asp  
           165                  170                  175  
 Leu Phe Leu Gln Val Tyr Glu Asp Leu Ile Gln Glu Leu Ala Lys Gln  
           180                  185                  190  
 Lys Cys Leu Gln Val Thr Ala \*  
       195                  199

<210> 1411  
 <211> 176  
 <212> PRT  
 <213> Homo sapiens

<400> 1411  
 Met Lys Thr Phe Ile Ile Gly Ile Ser Gly Val Thr Asn Ser Gly Lys  
   1                  5                  10                  15  
 Thr Thr Leu Ala Lys Asn Leu Gln Lys His Leu Pro Asn Cys Ser Val  
           20                  25                  30  
 Ile Ser Gln Asp Asp Phe Phe Lys Pro Glu Ser Glu Ile Glu Thr Asp  
       35                  40                  45  
 Lys Asn Gly Phe Leu Gln Tyr Asp Val Leu Glu Ala Leu Asn Met Glu  
       50                  55                  60  
 Lys Met Met Ser Ala Ile Ser Cys Trp Met Glu Ser Ala Arg His Ser  
       65                  70                  75                  80  
 Val Val Ser Thr Asp Gln Glu Ser Ala Glu Glu Ile Pro Ile Leu Ile  
           85                  90                  95  
 Ile Glu Gly Phe Leu Leu Phe Asn Tyr Asn Thr Arg Val Tyr Gln Pro  
           100                  105                  110

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Pro Asp Ser Pro Gly Tyr Phe Asp Gly His Val Trp Pro Met Tyr Leu
    115          120          125
Lys Tyr Arg Gln Glu Met Gln Asp Ile Thr Trp Glu Val Val Tyr Leu
    130          135          140
Asp Gly Thr Lys Ser Glu Glu Asp Leu Phe Leu Gln Val Tyr Glu Asp
    145          150          155          160
Leu Ile Gln Glu Leu Ala Lys Gln Lys Cys Leu Gln Val Thr Ala *
    165          170          175

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<210> 1412
<211> 158
<212> PRT
<213> Homo sapiens

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<400> 1412
Met Ser Ser Ala Ile Glu Arg Lys Ser Leu Asp Pro Ser Glu Glu Pro
  1          5          10          15
Val Asp Glu Val Leu Gln Ile Pro Pro Ser Leu Leu Thr Cys Gly Gly
    20          25          30
Cys Gln Gln Asn Ile Gly Asp Arg Tyr Phe Leu Lys Ala Ile Asp Gln
    35          40          45
Tyr Trp His Glu Asp Cys Leu Ser Cys Asp Leu Cys Gly Cys Arg Leu
    50          55          60
Gly Glu Val Gly Arg Arg Leu Tyr Tyr Lys Leu Gly Arg Lys Leu Cys
    65          70          75          80
Arg Arg Asp Tyr Leu Arg Leu Phe Gly Gln Asp Gly Leu Cys Ala Ser
    85          90          95
Cys Asp Lys Arg Ile Arg Ala Tyr Glu Met Thr Met Arg Val Lys Asp
    100          105          110
Lys Val Tyr His Leu Glu Cys Phe Lys Cys Ala Ala Cys Gln Lys His
    115          120          125
Phe Cys Val Gly Asp Arg Tyr Leu Leu Ile Asn Ser Asp Ile Val Cys
    130          135          140
Glu Gln Asp Ile Tyr Glu Trp Thr Lys Ile Asn Gly Met Ile
    145          150          155          158

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<210> 1413
<211> 128
<212> PRT
<213> Homo sapiens

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<400> 1413
Met Leu Thr Gln Gln Gly Met Ala Leu Gln Asn Tyr Asp Asn Lys Leu
  1          5          10          15
Val Lys Cys Ile Glu Glu Leu Cys Gln Lys Gln Glu Glu Leu Cys Trp
    20          25          30
Gln Ile Gln Gln Glu Glu Asp Lys Lys Gln Arg Leu Gln Asn Glu Val
    35          40          45
Arg Gln Leu Thr Glu Lys Leu Ala Cys Val Asn Glu Lys Leu Ala Arg
    50          55          60
Val Asn Glu Asn Leu Ala Arg Lys Ile Ala Ser Cys Ser Lys Phe Tyr
    65          70          75          80
Gln Thr Ile Ala Glu Thr Glu Ala Ala Tyr Leu Lys Ile Leu Glu Ser
    85          90          95
Ser Gln Thr Leu Leu Ser Val Leu Lys Arg Glu Ala Gly Asn Leu Thr
    100          105          110
Lys Ala Thr Ala Pro Asp Gln Lys Ser Ser Gly Gly Arg Asp Ser *
    115          120          125          127

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<210> 1414  
 <211> 175  
 <212> PRT  
 <213> Homo sapiens

<400> 1414  
 Met Gly Gly Thr Glu Ser Ser Ile Ser Glu Pro Gly Ser Pro Ser Arg  
 1 5 10 15  
 Asn Arg Glu Asn Glu Thr Ser Arg Gln Asn Leu Ser Glu Cys Lys Val  
 20 25 30  
 Trp Arg Asn Pro Leu Asn Leu Phe Arg Gly Ala Glu Tyr Arg Arg Tyr  
 35 40 45  
 Thr Trp Val Thr Gly Lys Glu Pro Leu Thr Tyr Tyr Asp Met Asn Leu  
 50 55 60  
 Ser Ala Gln Asp His Gln Thr Phe Phe Thr Cys Asp Thr Asp Phe Leu  
 65 70 75 80  
 Arg Pro Ser Asp Thr Val Met Gln Lys Ala Trp Arg Glu Arg Asn Pro  
 85 90 95  
 Pro Ala Arg Ile Lys Ala Ala Tyr Gln Ala Leu Glu Leu Asn Asn Asp  
 100 105 110  
 Cys Ala Thr Ala Tyr Val Leu Leu Ala Glu Glu Glu Ala Thr Thr Ile  
 115 120 125  
 Val Asp Ala Glu Arg Leu Phe Lys Gln Ala Leu Lys Ala Gly Glu Thr  
 130 135 140  
 Ile Tyr Arg Gln Ser Gln Gln Cys Gln His Gln Ser Pro Gln His Glu  
 145 150 155 160  
 Ala Gln Leu Arg Arg Asp Thr Asn Val Leu Val Tyr Ile Asn \*  
 165 170 174

<210> 1415  
 <211> 665  
 <212> PRT  
 <213> Homo sapiens

<400> 1415  
 Met Lys Thr Gly Leu Phe Phe Leu Cys Leu Leu Gly Thr Ala Ala Ala  
 1 5 10 15  
 Ile Pro Thr Asn Ala Arg Leu Leu Ser Asp His Ser Lys Pro Thr Ala  
 20 25 30  
 Glu Thr Val Ala Pro Asp Asn Thr Ala Ile Pro Ser Leu Arg Ala Glu  
 35 40 45  
 Ala Glu Glu Asn Glu Lys Glu Thr Ala Val Ser Thr Glu Asp Asp Ser  
 50 55 60  
 His His Lys Ala Glu Lys Ser Ser Val Leu Lys Ser Lys Glu Glu Ser  
 65 70 75 80  
 His Glu Gln Ser Ala Glu Gln Gly Lys Ser Ser Ser Gln Glu Leu Gly  
 85 90 95  
 Leu Lys Asp Gln Glu Asp Ser Asp Gly His Leu Ser Val Asn Leu Glu  
 100 105 110  
 Tyr Ala Pro Thr Glu Gly Thr Leu Asp Ile Lys Glu Asp Met Ser Glu  
 115 120 125  
 Pro Gln Glu Lys Lys Leu Ser Glu Asn Thr Asp Phe Leu Ala Pro Gly  
 130 135 140  
 Val Ser Ser Phe Thr Asp Ser Asn Gln Gln Glu Ser Ile Thr Lys Arg  
 145 150 155 160  
 Glu Glu Asn Gln Glu Gln Pro Arg Asn Tyr Ser His His Gln Leu Asn  
 165 170 175

Arg	Ser	Ser	Lys	His	Ser	Gln	Gly	Leu	Arg	Asp	Gln	Gly	Asn	Gln	Glu
			180					185					190		
Gln	Asp	Pro	Asn	Ile	Ser	Asn	Gly	Glu	Glu	Glu	Glu	Glu	Lys	Glu	Pro
		195					200					205			
Gly	Glu	Val	Gly	Thr	His	Asn	Asp	Asn	Gln	Glu	Arg	Lys	Thr	Glu	Leu
	210					215					220				
Pro	Arg	Glu	His	Ala	Asn	Ser	Lys	Gln	Glu	Glu	Asp	Asn	Thr	Gln	Ser
	225				230						235				240
Asp	Asp	Ile	Leu	Glu	Glu	Ser	Asp	Gln	Pro	Thr	Gln	Val	Ser	Lys	Met
			245						250					255	
Gln	Glu	Asp	Glu	Phe	Asp	Gln	Gly	Asn	Gln	Glu	Gln	Glu	Asp	Asn	Ser
			260					265					270		
Asn	Ala	Glu	Met	Glu	Glu	Glu	Asn	Ala	Ser	Asn	Val	Asn	Lys	His	Ile
	275						280					285			
Gln	Glu	Thr	Glu	Trp	Gln	Ser	Gln	Glu	Gly	Lys	Thr	Gly	Leu	Glu	Ala
	290				295						300				
Ile	Ser	Asn	His	Lys	Glu	Thr	Glu	Glu	Lys	Thr	Val	Ser	Glu	Ala	Leu
	305				310					315					320
Leu	Met	Glu	Pro	Thr	Asp	Asp	Gly	Asn	Thr	Thr	Pro	Arg	Asn	His	Gly
				325					330					335	
Val	Asp	Asp	Asp	Gly	Asp	Asp	Asp	Gly	Asp	Asp	Gly	Gly	Thr	Asp	Gly
			340					345					350		
Pro	Arg	His	Ser	Ala	Ser	Asp	Asp	Tyr	Phe	Ile	Pro	Ser	Gln	Ala	Phe
		355					360						365		
Leu	Glu	Ala	Glu	Arg	Ala	Gln	Ser	Ile	Ala	Tyr	His	Leu	Lys	Ile	Glu
	370					375					380				
Glu	Gln	Arg	Glu	Lys	Val	His	Glu	Asn	Glu	Asn	Ile	Gly	Thr	Thr	Glu
	385				390					395					400
Pro	Gly	Glu	His	Gln	Glu	Ala	Lys	Lys	Ala	Glu	Asn	Ser	Ser	Asn	Glu
				405					410					415	
Glu	Glu	Thr	Ser	Ser	Glu	Gly	Asn	Met	Arg	Val	His	Ala	Val	Asp	Ser
		420					425						430		
Cys	Met	Ser	Phe	Gln	Cys	Lys	Arg	Gly	His	Ile	Cys	Lys	Ala	Asp	Gln
		435					440					445			
Gln	Gly	Lys	Pro	His	Cys	Val	Cys	Gln	Asp	Pro	Val	Thr	Cys	Pro	Pro
	450				455						460				
Thr	Lys	Pro	Leu	Asp	Gln	Val	Cys	Gly	Thr	Asp	Asn	Gln	Thr	Tyr	Ala
	465				470					475					480
Ser	Ser	Cys	His	Leu	Phe	Ala	Thr	Lys	Cys	Arg	Leu	Glu	Gly	Thr	Lys
				485					490					495	
Lys	Gly	His	Gln	Leu	Gln	Leu	Asp	Tyr	Phe	Gly	Ala	Cys	Lys	Ser	Ile
		500						505					510		
Pro	Thr	Cys	Thr	Asp	Phe	Glu	Val	Ile	Gln	Phe	Pro	Leu	Arg	Met	Arg
		515					520						525		
Asp	Trp	Leu	Lys	Asn	Ile	Leu	Met	Gln	Leu	Tyr	Glu	Ala	Asn	Ser	Glu
	530					535						540			
His	Ala	Gly	Tyr	Leu	Asn	Glu	Lys	Gln	Arg	Asn	Lys	Val	Lys	Lys	Ile
	545				550					555					560
Tyr	Leu	Asp	Glu	Lys	Arg	Leu	Leu	Ala	Gly	Asp	His	Pro	Ile	Asp	Leu
				565					570					575	
Leu	Leu	Arg	Asp	Phe	Lys	Lys	Asn	Tyr	His	Met	Tyr	Val	Tyr	Pro	Val
		580						585					590		
His	Trp	Gln	Phe	Ser	Glu	Leu	Asp	Gln	His	Pro	Met	Asp	Arg	Val	Leu
		595					600					605			
Thr	His	Ser	Glu	Leu	Ala	Pro	Leu	Arg	Ala	Ser	Leu	Val	Pro	Met	Glu
	610					615						620			
His	Cys	Ile	Thr	Arg	Phe	Glu	Glu	Cys	Asp	Pro	Asn	Lys	Asp	Lys	
	625				630					635					640
His	Ile	Thr	Leu	Lys	Glu	Trp	Gly	His	Cys	Phe	Gly	Ile	Lys	Glu	Glu
				645					650					655	
Asp	Ile	Asp	Glu	Asn	Leu	Leu	Phe	*							
			660				664								

<210> 1416  
 <211> 729  
 <212> PRT  
 <213> Homo sapiens

<400> 1416  
 Met Ala Gly Pro Glu Gly Phe Gln Tyr Arg Ala Leu Tyr Pro Phe Arg  
 1 5 10 15  
 Arg Glu Arg Pro Glu Asp Leu Glu Leu Leu Pro Gly Asp Val Leu Val  
 20 25 30  
 Val Ser Arg Ala Ala Leu Gln Ala Leu Gly Val Ala Glu Gly Gly Glu  
 35 40 45  
 Arg Cys Pro Gln Ser Val Gly Trp Met Pro Gly Leu Asn Glu Arg Thr  
 50 55 60  
 Arg Gln Arg Gly Asp Phe Pro Gly Thr Tyr Val Glu Phe Leu Gly Pro  
 65 70 75 80  
 Val Ala Leu Ala Arg Pro Gly Pro Arg Pro Arg Gly Pro Arg Pro Leu  
 85 90 95  
 Pro Ala Arg Pro Arg Asp Gly Ala Pro Glu Pro Gly Leu Thr Leu Pro  
 100 105 110  
 Asp Leu Pro Glu Gln Phe Ser Pro Pro Asp Val Ala Pro Pro Leu Leu  
 115 120 125  
 Val Lys Leu Val Glu Ala Ile Glu Arg Thr Gly Leu Asp Ser Glu Ser  
 130 135 140  
 His Tyr Arg Pro Glu Leu Pro Ala Pro Arg Thr Asp Trp Ser Leu Ser  
 145 150 155 160  
 Asp Val Asp Gln Trp Asp Thr Ala Ala Leu Ala Asp Gly Ile Lys Ser  
 165 170 175  
 Phe Leu Leu Ala Leu Pro Ala Pro Leu Val Thr Pro Glu Ala Ser Ala  
 180 185 190  
 Glu Ala Arg Arg Ala Leu Arg Glu Ala Ala Gly Pro Val Gly Pro Ala  
 195 200 205  
 Leu Glu Pro Pro Thr Leu Pro Leu His Arg Ala Leu Thr Leu Arg Phe  
 210 215 220  
 Leu Leu Gln His Leu Gly Arg Val Ala Ser Arg Ala Pro Ala Leu Gly  
 225 230 235 240  
 Pro Ala Val Arg Ala Leu Gly Ala Thr Phe Gly Pro Leu Leu Leu Arg  
 245 250 255  
 Ala Pro Pro Pro Pro Ser Ser Pro Pro Pro Gly Gly Ala Pro Asp Gly  
 260 265 270  
 Ser Glu Pro Ser Pro Asp Phe Pro Ala Leu Leu Val Glu Lys Leu Leu  
 275 280 285  
 Gln Glu His Leu Glu Glu Gln Glu Val Ala Pro Pro Ala Leu Pro Pro  
 290 295 300  
 Lys Pro Pro Lys Ala Lys Pro Ala Ser Thr Val Leu Ala Asn Gly Gly  
 305 310 315 320  
 Ser Pro Pro Ser Leu Gln Asp Ala Glu Trp Tyr Trp Gly Asp Ile Ser  
 325 330 335  
 Arg Glu Glu Val Asn Glu Lys Leu Arg Asp Thr Pro Asp Gly Thr Phe  
 340 345 350  
 Leu Val Arg Asp Ala Ser Ser Lys Ile Gln Gly Glu Tyr Thr Leu Thr  
 355 360 365  
 Leu Arg Lys Gly Gly Asn Asn Lys Leu Ile Lys Val Phe His Arg Asp  
 370 375 380  
 Gly His Tyr Gly Phe Ser Glu Pro Leu Thr Phe Cys Ser Val Val Asp  
 385 390 395 400  
 Leu Ile Asn His Tyr Arg His Glu Ser Leu Ala Gln Tyr Asn Ala Lys  
 405 410 415  
 Leu Asp Thr Arg Leu Leu Tyr Pro Val Ser Lys Tyr Gln Gln Asp Gln  
 420 425 430  
 Ile Val Lys Glu Asp Ser Val Glu Ala Val Gly Ala Gln Leu Lys Val  
 435 440 445

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Tyr His Gln Gln Tyr Gln Asp Lys Ser Arg Glu Tyr Asp Gln Leu Tyr
450          455          460
Glu Glu Tyr Thr Arg Thr Ser Gln Glu Leu Gln Met Lys Arg Thr Ala
465          470          475          480
Ile Glu Ala Phe Asn Glu Thr Ile Lys Ile Phe Glu Glu Gln Ser Gln
          485          490          495
Thr Gln Glu Lys Cys Ser Lys Glu Tyr Leu Glu Arg Phe Arg Arg Glu
          500          505          510
Gly Asn Glu Lys Glu Met Gln Arg Ile Leu Leu Asn Ser Glu Arg Leu
          515          520          525
Lys Ser Arg Ile Ala Glu Ile His Glu Ser Arg Thr Lys Leu Glu Gln
530          535          540
Gln Leu Arg Ala Gln Ala Ser Asp Asn Arg Glu Ile Asp Lys Arg Met
545          550          555          560
Asn Ser Leu Lys Pro Asp Leu Met Gln Leu Arg Lys Ile Arg Asp Gln
          565          570          575
Tyr Leu Val Trp Leu Thr Gln Lys Gly Ala Arg Gln Lys Lys Ile Asn
          580          585          590
Glu Trp Leu Gly Ile Lys Asn Glu Thr Glu Asp Gln Tyr Ala Leu Met
          595          600          605
Glu Asp Glu Asp Asp Leu Pro His His Glu Glu Arg Thr Trp Tyr Val
610          615          620
Gly Lys Ile Asn Arg Thr Gln Ala Glu Glu Met Leu Ser Gly Lys Arg
625          630          635          640
Asp Gly Thr Phe Leu Ile Arg Glu Ser Ser Gln Arg Gly Cys Tyr Ala
          645          650          655
Cys Ser Val Val Val Asp Gly Asp Thr Lys His Cys Val Ile Tyr Arg
          660          665          670
Thr Ala Thr Gly Phe Gly Phe Ala Glu Pro Tyr Asn Leu Tyr Gly Ser
          675          680          685
Leu Lys Glu Leu Val Leu His Tyr Gln His Ala Ser Leu Val Gln His
690          695          700
Asn Asp Ala Leu Thr Val Thr Leu Ala His Pro Val Arg Ala Pro Gly
705          710          715          720
Pro Gly Pro Pro Pro Ala Ala Arg *
          725          728

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<210> 1417  
 <211> 705  
 <212> PRT  
 <213> Homo sapiens

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          <400> 1417
Met Asp Ser Ala Arg His His Ile Ser His Ser Thr Ser Ala Gly Pro
1          5          10          15
Ile Pro Ser Gln Lys Glu Glu Glu Met Thr Glu Ser Gln Gly Thr Val
          20          25          30
Thr Phe Lys Asp Val Ala Ile Asp Phe Thr Gln Glu Glu Trp Lys Arg
          35          40          45
Leu Asp Pro Ala Gln Arg Lys Leu Tyr Arg Asn Val Met Leu Glu Asn
          50          55          60
Tyr Asn Asn Leu Ile Thr Val Gly Tyr Pro Phe Thr Lys Pro Asp Val
          65          70          75          80
Ile Phe Lys Leu Glu Gln Glu Glu Glu Pro Trp Val Met Glu Glu Glu
          85          90          95
Val Leu Arg Arg His Trp Gln Gly Glu Ile Trp Gly Val Asp Glu His
          100          105          110
Gln Lys Asn Gln Asp Arg Leu Leu Arg Gln Val Glu Val Lys Phe Gln
          115          120          125
Lys Thr Leu Thr Glu Glu Lys Gly Asn Glu Cys Gln Lys Lys Phe Ala
130          135          140

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Asn Val Phe Pro Leu Asn Ser Asp Phe Phe Pro Ser Arg His Asn Leu	145	150	155	160
Tyr Glu Tyr Asp Leu Phe Gly Lys Cys Leu Glu His Asn Phe Asp Cys	165	170	175	
His Asn Asn Val Lys Cys Leu Met Arg Lys Glu His Cys Glu Tyr Asn	180	185	190	
Glu Pro Val Lys Ser Tyr Gly Asn Ser Ser Ser His Phe Val Ile Thr	195	200	205	
Pro Phe Lys Cys Asn His Cys Gly Lys Gly Phe Asn Gln Thr Leu Asp	210	215	220	
Leu Ile Arg His Leu Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys	225	230	235	240
Ser Asn Cys Arg Lys Ala Phe Ser His Lys Glu Lys Leu Ile Lys His	245	250	255	
Tyr Lys Ile His Ser Arg Glu Gln Ser Tyr Lys Cys Asn Glu Cys Gly	260	265	270	
Lys Ala Phe Ile Lys Met Ser Asn Leu Ile Arg His Gln Arg Ile His	275	280	285	
Thr Gly Glu Lys Pro Tyr Ala Cys Lys Glu Cys Glu Lys Ser Phe Ser	290	295	300	
Gln Lys Ser Asn Leu Ile Asp His Glu Lys Ile His Thr Gly Glu Lys	305	310	315	320
Pro Tyr Glu Cys Asn Glu Cys Gly Lys Ala Phe Ser Gln Lys Gln Ser	325	330	335	
Leu Ile Ala His Gln Lys Val His Thr Gly Glu Lys Pro Tyr Ala Cys	340	345	350	
Asn Glu Cys Gly Lys Ala Phe Pro Arg Ile Ala Ser Leu Ala Leu His	355	360	365	
Met Arg Ser His Thr Gly Glu Lys Pro Tyr Lys Cys Asp Lys Cys Gly	370	375	380	
Lys Ala Phe Ser Gln Phe Ser Met Leu Ile Ile His Val Arg Ile His	385	390	395	400
Thr Gly Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly Lys Ala Phe Ser	405	410	415	
Gln Ser Ser Ala Leu Thr Val His Met Arg Ser His Thr Gly Glu Lys	420	425	430	
Pro Tyr Glu Cys Lys Glu Cys Arg Lys Ala Phe Ser His Lys Lys Asn	435	440	445	
Phe Ile Thr His Gln Lys Ile His Thr Arg Glu Lys Pro Tyr Glu Cys	450	455	460	
Asn Glu Cys Gly Lys Ala Phe Ile Gln Met Ser Asn Leu Val Arg His	465	470	475	480
Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Ile Cys Lys Glu Cys Gly	485	490	495	
Lys Ala Phe Ser Gln Asn Ser Asn Leu Ile Ala His Glu Lys Ile His	500	505	510	
Ser Gly Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly Lys Ala Phe Ser	515	520	525	
Gln Lys Gln Asn Phe Ile Thr His Gln Lys Val His Thr Gly Glu Lys	530	535	540	
Pro Tyr Asp Cys Asn Glu Cys Gly Lys Ala Phe Ser Gln Ile Ala Ser	545	550	555	560
Leu Thr Leu His Leu Arg Ser His Thr Gly Glu Lys Pro Tyr Glu Cys	565	570	575	
Asp Lys Cys Gly Lys Ala Phe Ser Gln Cys Ser Leu Leu Asn Leu His	580	585	590	
Met Arg Ser His Thr Gly Glu Lys Pro Tyr Val Cys Asn Glu Cys Gly	595	600	605	
Lys Ala Phe Ser Gln Arg Thr Ser Leu Ile Val His Met Arg Gly His	610	615	620	
Thr Gly Glu Lys Pro Tyr Glu Cys Asn Lys Cys Gly Lys Ala Phe Ser	625	630	635	640
Gln Ser Ser Ser Leu Thr Ile His Ile Arg Gly His Thr Gly Glu Lys	645	650	655	

Pro Tyr Glu Cys Lys Glu Cys Arg Lys Ala Phe Ser His Lys Lys Asn  
                   660                  665                  670  
 Phe Ile Thr His Gln Lys Ile His Thr Arg Glu Lys Pro Leu Ser Val  
                   675                  680                  685  
 Ile Ile Val Glu Lys Ala Ser Ile Arg Leu Trp Thr Ser Ser Asp Ile  
                   690                  695                  700                  704  
 \*

<210> 1418  
 <211> 259  
 <212> PRT  
 <213> Homo sapiens

<400> 1418  
 Met Ala Arg Pro Pro Val Pro Gly Ser Val Val Val Pro Asn Trp His  
   1                  5                  10                  15  
 Glu Ser Ala Glu Gly Lys Glu Tyr Leu Ala Cys Ile Leu Arg Lys Asn  
                   20                  25                  30  
 Arg Arg Arg Val Phe Gly Leu Leu Glu Arg Pro Val Leu Leu Pro Pro  
                   35                  40                  45  
 Val Ser Ile Asp Thr Ala Ser Tyr Lys Ile Phe Val Ser Gly Lys Ser  
                   50                  55                  60  
 Gly Val Gly Lys Thr Ala Leu Val Ala Lys Leu Ala Gly Leu Glu Val  
                   65                  70                  75                  80  
 Pro Val Val His His Glu Thr Thr Gly Ile Gln Thr Thr Val Val Phe  
                   85                  90                  95  
 Trp Pro Ala Lys Leu Gln Ala Ser Ser Arg Val Val Met Phe Arg Phe  
                   100                  105                  110  
 Glu Phe Trp Asp Cys Gly Glu Ser Ala Leu Lys Lys Phe Asp His Met  
                   115                  120                  125  
 Leu Leu Ala Cys Met Glu Asn Thr Asp Ala Phe Leu Phe Leu Phe Ser  
                   130                  135                  140  
 Phe Thr Asp Arg Ala Ser Phe Glu Asp Leu Pro Gly Gln Leu Ala Arg  
                   145                  150                  155                  160  
 Ile Ala Gly Glu Ala Pro Gly Val Val Arg Met Val Ile Gly Ser Lys  
                   165                  170                  175  
 Phe Asp Gln Tyr Met His Thr Asp Val Pro Glu Arg Asp Leu Thr Ala  
                   180                  185                  190  
 Phe Arg Gln Ala Trp Glu Leu Pro Leu Leu Arg Val Lys Ser Val Pro  
                   195                  200                  205  
 Gly Arg Arg Leu Ala Asp Gly Arg Thr Leu Asp Gly Arg Ala Gly Leu  
                   210                  215                  220  
 Ala Asp Val Ala His Ile Leu Asn Gly Leu Ala Glu Gln Leu Trp His  
                   225                  230                  235                  240  
 Gln Asp Gln Val Ala Ala Gly Leu Leu Pro Asn Pro Pro Glu Ser Ala  
                   245                  250                  255  
 Pro Glu \*  
                   258

<210> 1419  
 <211> 359  
 <212> PRT  
 <213> Homo sapiens

<400> 1419  
 Met Leu Thr Cys Pro Pro Tyr Pro Cys Pro Gln Leu Glu Glu His Arg  
   1                  5                  10                  15



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Asn Ser Gln Lys Gln Met Lys Leu Leu Gln Lys Lys Gln Ser Gln Leu
      20      25      30
Val Gln Glu Lys Asp His Leu Arg Gly Glu His Ser Lys Ala Val Leu
      35      40      45
Ala Arg Ser Lys Leu Glu Ser Leu Cys Arg Glu Leu Gln Arg His Asn
      50      55      60
Arg Ser Leu Lys Glu Glu Gly Val Gln Arg Ala Arg Glu Glu Glu Glu
      65      70      75      80
Lys Arg Lys Glu Val Thr Ser His Phe Gln Val Thr Leu Asn Asp Ile
      85      90      95
Gln Leu Gln Met Glu Gln His Asn Glu Arg Asn Ser Lys Leu Arg Gln
      100      105      110
Glu Asn Met Glu Leu Ala Glu Arg Leu Lys Lys Leu Ile Glu Gln Tyr
      115      120      125
Glu Leu Arg Glu Glu His Ile Asp Lys Val Phe Lys His Lys Asp Leu
      130      135      140
Gln Gln Gln Leu Val Asp Ala Lys Leu Gln Gln Ala Gln Glu Met Leu
      145      150      155      160
Lys Glu Ala Glu Glu Arg His Gln Arg Glu Lys Asp Phe Leu Leu Lys
      165      170      175
Glu Ala Val Glu Ser Gln Arg Met Cys Glu Leu Met Lys Gln Gln Glu
      180      185      190
Thr His Leu Lys Gln Gln Leu Ala Leu Tyr Thr Glu Lys Phe Glu Glu
      195      200      205
Phe Gln Asn Thr Leu Ser Lys Ser Ser Glu Val Phe Thr Thr Phe Lys
      210      215      220
Gln Glu Met Glu Lys Met Thr Lys Lys Ile Lys Lys Leu Glu Lys Glu
      225      230      235      240
Thr Thr Met Tyr Arg Ser Arg Trp Glu Ser Ser Asn Lys Ala Leu Leu
      245      250      255
Glu Met Ala Glu Glu Lys Thr Val Arg Asp Lys Glu Leu Glu Gly Leu
      260      265      270
Gln Val Lys Ile Gln Arg Leu Glu Lys Leu Cys Arg Ala Leu Gln Thr
      275      280      285
Glu Arg Asn Asp Leu Asn Lys Arg Val Gln Asp Leu Ser Ala Gly Gly
      290      295      300
Gln Gly Ser Leu Thr Asp Ser Gly Pro Glu Arg Arg Pro Glu Gly Pro
      305      310      315      320
Gly Ala Gln Ala Pro Ser Ser Pro Arg Val Thr Glu Ala Pro Cys Tyr
      325      330      335
Pro Gly Ala Pro Ser Thr Glu Ala Ser Gly Gln Thr Gly Pro Gln Glu
      340      345      350
Pro Thr Ser Ala Arg Ala *
      355      358

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<210> 1420  
 <211> 850  
 <212> PRT  
 <213> Homo sapiens

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<400> 1420
Met Gly Asp Lys Lys Asp Asp Lys Asp Ser Pro Lys Lys Asn Lys Gly
  1      5      10      15
Lys Glu Arg Arg Asp Leu Asp Asp Leu Lys Lys Glu Val Ala Met Thr
      20      25      30
Glu His Lys Met Ser Val Glu Glu Val Cys Arg Lys Tyr Asn Thr Asp
      35      40      45
Cys Val Gln Gly Leu Thr His Ser Lys Ala Gln Glu Ile Leu Ala Arg
      50      55      60
Asp Gly Pro Asn Ala Leu Thr Pro Pro Pro Thr Thr Pro Glu Trp Val
      65      70      75      80

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3199

Val Gly Lys Cys Arg Ser Ala Gly Ile Lys Val Ile Met Val Thr Gly  
 595 600 605  
 Asp His Pro Ile Thr Ala Lys Ala Ile Ala Lys Gly Val Gly Ile Ile  
 610 615 620  
 Phe Glu Gly Asn Glu Thr Val Glu Asp Ile Ala Ala Arg Leu Asn Ile  
 625 630 635 640  
 Pro Val Ser Gln Val Asn Pro Arg Asp Ala Lys Ala Cys Val Ile His  
 645 650 655  
 Gly Thr Asp Leu Lys Asp Phe Thr Ser Glu Gln Ile Asp Glu Ile Leu  
 660 665 670  
 Gln Asn His Thr Glu Ile Val Phe Ala Arg Thr Ser Pro Gln Gln Lys  
 675 680 685  
 Leu Ile Ile Val Glu Gly Cys Gln Arg Gln Gly Ala Ile Val Ala Val  
 690 695 700  
 Thr Gly Asp Gly Val Asn Asp Ser Pro Ala Leu Lys Lys Ala Asp Ile  
 705 710 715 720  
 Gly Val Ala Met Gly Ile Ala Gly Ser Asp Val Ser Lys Gln Ala Ala  
 725 730 735  
 Asp Met Ile Leu Leu Asp Asp Asn Phe Ala Ser Ile Val Thr Gly Val  
 740 745 750  
 Glu Glu Gly Arg Leu Ile Phe Asp Asn Leu Lys Lys Ser Ile Ala Tyr  
 755 760 765  
 Thr Leu Thr Ser Asn Ile Pro Glu Ile Thr Pro Phe Leu Leu Phe Ile  
 770 775 780  
 Met Ala Asn Ile Pro Leu Pro Leu Gly Thr Ile Thr Ile Leu Cys Ile  
 785 790 795 800  
 Asp Leu Gly Thr Asp Met Val Pro Ala Ile Ser Leu Ala Tyr Glu Ala  
 805 810 815  
 Ala Glu Ser Asp Ile Met Lys Arg Gln Pro Arg Asn Pro Arg Thr Asp  
 820 825 830  
 Lys Leu Ala Glu Glu Pro Met Gly Arg Ser Tyr His Leu Trp Asp Tyr  
 835 840 845  
 Asp \*  
 849

<210> 1421  
 <211> 1721  
 <212> PRT  
 <213> Homo sapiens

<400> 1421  
 Met Leu Ile Ser Lys Asn Met Pro Trp Arg Arg Leu Gln Gly Ile Ser  
 1 5 10 15  
 Phe Gly Met Tyr Ser Ala Glu Glu Leu Lys Lys Leu Ser Val Lys Ser  
 20 25 30  
 Ile Thr Asn Pro Arg Tyr Leu Asp Ser Leu Gly Asn Pro Ser Ala Asn  
 35 40 45  
 Gly Leu Tyr Asp Leu Ala Leu Gly Pro Ala Asp Ser Lys Glu Val Cys  
 50 55 60  
 Ser Thr Cys Val Gln Asp Phe Ser Asn Cys Ser Gly His Leu Gly His  
 65 70 75 80  
 Ile Glu Leu Pro Leu Thr Val Tyr Asn Pro Leu Leu Phe Asp Lys Leu  
 85 90 95  
 Tyr Leu Leu Leu Arg Gly Ser Cys Leu Asn Cys His Met Leu Thr Cys  
 100 105 110  
 Pro Arg Ala Val Ile His Leu Leu Leu Cys Gln Leu Arg Val Leu Glu  
 115 120 125  
 Val Gly Ala Leu Gln Ala Val Tyr Glu Leu Glu Arg Ile Leu Asn Arg  
 130 135 140  
 Phe Leu Glu Glu Asn Ala Asp Pro Ser Ala Ser Glu Ile Arg Glu Glu  
 145 150 155 160

Leu Glu Gln Tyr Thr Thr Glu Ile Val Gln Asn Asn Leu Leu Gly Ser  
 165 170 175  
 Gln Gly Ala His Val Lys Asn Val Cys Glu Ser Lys Ser Lys Leu Ile  
 180 185 190  
 Ala Leu Phe Trp Lys Ala His Met Asn Ala Lys Arg Cys Pro His Cys  
 195 200 205  
 Lys Thr Gly Arg Ser Val Val Arg Lys Glu His Asn Ser Lys Leu Thr  
 210 215 220  
 Ile Thr Phe Pro Ala Met Val His Arg Thr Ala Gly Gln Lys Asp Ser  
 225 230 235 240  
 Glu Pro Leu Gly Ile Glu Glu Ala Gln Ile Gly Lys Arg Gly Tyr Leu  
 245 250 255  
 Thr Pro Thr Ser Ala Arg Glu His Leu Ser Ala Leu Trp Lys Asn Glu  
 260 265 270  
 Gly Phe Phe Leu Asn Tyr Leu Phe Ser Gly Met Asp Asp Asp Gly Met  
 275 280 285  
 Glu Ser Arg Phe Asn Pro Ser Val Phe Phe Leu Asp Phe Leu Val Val  
 290 295 300  
 Pro Pro Ser Arg Tyr Arg Pro Val Ser Arg Leu Gly Asp Gln Met Phe  
 305 310 315 320  
 Thr Asn Gly Gln Thr Val Asn Leu Gln Ala Val Met Lys Asp Val Val  
 325 330 335  
 Leu Ile Arg Lys Leu Leu Ala Leu Met Ala Gln Glu Gln Lys Leu Pro  
 340 345 350  
 Glu Glu Val Ala Thr Pro Thr Thr Asp Glu Glu Lys Asp Ser Leu Ile  
 355 360 365  
 Ala Ile Asp Arg Ser Phe Leu Ser Thr Leu Pro Gly Gln Ser Leu Ile  
 370 375 380  
 Asp Lys Leu Tyr Asn Ile Trp Ile Arg Leu Gln Ser His Val Asn Ile  
 385 390 395 400  
 Val Phe Asp Ser Glu Met Asp Lys Leu Met Met Asp Lys Tyr Pro Gly  
 405 410 415  
 Ile Arg Gln Ile Leu Glu Lys Lys Glu Gly Leu Phe Arg Lys His Met  
 420 425 430  
 Met Gly Lys Arg Val Asp Tyr Ala Ala Arg Ser Val Ile Cys Pro Asp  
 435 440 445  
 Met Tyr Ile Asn Thr Asn Glu Ile Gly Ile Pro Met Val Phe Ala Thr  
 450 455 460  
 Lys Leu Thr Tyr Pro Gln Pro Val Thr Pro Trp Asn Val Gln Glu Leu  
 465 470 475 480  
 Arg Gln Ala Val Ile Asn Gly Pro Asn Val His Pro Gly Ala Ser Met  
 485 490 495  
 Val Ile Asn Glu Asp Gly Ser Arg Thr Ala Leu Ser Ala Val Asp Met  
 500 505 510  
 Thr Gln Arg Glu Ala Val Ala Lys Gln Leu Leu Thr Pro Ala Thr Gly  
 515 520 525  
 Ala Pro Lys Pro Gln Gly Thr Lys Ile Val Cys Arg His Val Lys Asn  
 530 535 540  
 Gly Asp Ile Leu Leu Leu Asn Arg Gln Pro Thr Leu His Arg Pro Ser  
 545 550 555 560  
 Ile Gln Ala His Arg Ala Arg Ile Leu Pro Glu Glu Lys Val Leu Arg  
 565 570 575  
 Leu His Tyr Ala Asn Cys Lys Ala Tyr Asn Ala Asp Phe Asp Gly Asp  
 580 585 590  
 Glu Met Asn Ala His Phe Pro Gln Ser Glu Leu Gly Arg Ala Glu Ala  
 595 600 605  
 Tyr Val Leu Ala Cys Thr Asp Gln Gln Tyr Leu Val Pro Lys Asp Gly  
 610 615 620  
 Gln Pro Leu Ala Gly Leu Ile Gln Asp His Met Val Ser Gly Ala Ser  
 625 630 635 640  
 Met Thr Thr Arg Gly Cys Phe Phe Thr Arg Glu His Tyr Met Glu Leu  
 645 650 655  
 Val Tyr Arg Gly Leu Thr Asp Lys Val Gly Arg Val Lys Leu Leu Ser  
 660 665 670

Pro Ser Ile Leu Lys Pro Phe Pro Leu Trp Thr Gly Lys Gln Val Val  
 675 680 685  
 Ser Thr Leu Leu Ile Asn Ile Ile Pro Glu Asp His Ile Pro Leu Asn  
 690 695 700  
 Leu Ser Gly Lys Ala Lys Ile Thr Gly Lys Ala Trp Val Lys Glu Thr  
 705 710 715 720  
 Pro Arg Ser Val Pro Gly Phe Asn Pro Asp Ser Met Cys Glu Ser Gln  
 725 730 735  
 Val Ile Ile Arg Glu Gly Glu Leu Leu Cys Gly Val Leu Asp Lys Ala  
 740 745 750  
 His Tyr Gly Ser Ser Ala Tyr Gly Leu Val His Cys Cys Tyr Glu Ile  
 755 760 765  
 Tyr Gly Gly Glu Thr Ser Gly Lys Val Leu Thr Cys Leu Ala Arg Leu  
 770 775 780  
 Phe Thr Ala Tyr Leu Gln Leu Tyr Arg Gly Phe Thr Leu Gly Val Glu  
 785 790 795 800  
 Asp Ile Leu Val Lys Pro Lys Ala Asp Val Lys Arg Gln Arg Ile Ile  
 805 810 815  
 Glu Glu Ser Thr His Cys Gly Pro Gln Ala Val Arg Ala Ala Leu Asn  
 820 825 830  
 Leu Pro Glu Ala Ala Ser Tyr Asp Glu Val Arg Gly Lys Trp Gln Asp  
 835 840 845  
 Ala His Leu Gly Lys Asp Gln Arg Asp Phe Asn Met Ile Asp Leu Lys  
 850 855 860  
 Phe Lys Glu Glu Val Asn His Tyr Ser Asn Glu Ile Asn Lys Ala Cys  
 865 870 875 880  
 Met Pro Phe Gly Leu His Arg Gln Phe Pro Glu Asn Thr Leu Gln Leu  
 885 890 895  
 Met Val Gln Ser Gly Ala Lys Gly Ser Thr Val Asn Thr Met Gln Ile  
 900 905 910  
 Ser Cys Leu Leu Gly Gln Ile Glu Leu Glu Gly Arg Ser Thr Pro Leu  
 915 920 925  
 Met Ala Ser Gly Lys Ser Leu Pro Cys Phe Glu Pro Tyr Glu Phe Thr  
 930 935 940  
 Pro Arg Ala Gly Gly Phe Val Thr Gly Arg Phe Leu Thr Gly Ile Lys  
 945 950 955 960  
 Pro Pro Glu Phe Phe His Cys Met Ala Gly Arg Glu Gly Leu Val  
 965 970 975  
 Asp Thr Ala Val Lys Thr Ser Arg Ser Gly Tyr Leu Gln Arg Cys Ile  
 980 985 990  
 Ile Lys His Leu Glu Gly Leu Val Val Gln Tyr Asp Leu Thr Val Arg  
 995 1000 1005  
 Asp Ser Asp Gly Ser Val Val Gln Phe Leu Tyr Gly Glu Asp Gly Leu  
 1010 1015 1020  
 Asp Ile Pro Lys Thr Gln Phe Leu Gln Pro Lys Gln Phe Pro Phe Leu  
 1025 1030 1035 1040  
 Ala Ser Asn Tyr Glu Val Ile Met Lys Ser Gln His Leu His Glu Val  
 1045 1050 1055  
 Leu Ser Arg Ala Asp Pro Lys Lys Ala Leu His His Phe Arg Ala Ile  
 1060 1065 1070  
 Lys Lys Trp Gln Ser Lys His Pro Asn Thr Leu Leu Arg Arg Gly Ala  
 1075 1080 1085  
 Phe Leu Ser Tyr Ser Gln Lys Ile Gln Glu Ala Val Lys Ala Leu Lys  
 1090 1095 1100  
 Leu Glu Ser Glu Asn Arg Asn Gly Arg Arg Pro Trp Asp Ser Gly Arg  
 1105 1110 1115 1120  
 Met Leu Arg Met Trp Tyr Glu Leu Asp Glu Glu Ser Arg Arg Lys Tyr  
 1125 1130 1135  
 Gln Lys Lys Ala Ala Cys Pro Asp Pro Ser Leu Ser Val Trp Arg  
 1140 1145 1150  
 Pro Asp Ile Tyr Phe Ala Ser Val Ser Glu Thr Phe Glu Thr Lys Val  
 1155 1160 1165  
 Asp Asp Tyr Ser Gln Glu Trp Ala Ala Gln Thr Glu Lys Ser Tyr Glu  
 1170 1175 1180

Lys Ser Glu Leu Ser Leu Asp Arg Leu Arg Thr Leu Leu Gln Leu Lys  
 1185 1190 1195 1200  
 Trp Gln Arg Ser Leu Cys Glu Pro Gly Glu Ala Val Gly Leu Leu Ala  
 1205 1210 1215  
 Ala Gln Ser Ile Gly Glu Pro Ser Thr Gln Met Thr Leu Asn Thr Phe  
 1220 1225 1230  
 His Phe Ala Gly Arg Gly Glu Met Asn Val Thr Leu Gly Ile Pro Arg  
 1235 1240 1245  
 Leu Arg Glu Ile Leu Met Val Ala Ser Ala Asn Ile Lys Thr Pro Met  
 1250 1255 1260  
 Met Ser Val Pro Val Leu Asn Thr Lys Lys Ala Leu Lys Arg Val Lys  
 1265 1270 1275 1280  
 Ser Leu Lys Lys Gln Leu Thr Arg Val Cys Leu Gly Glu Val Leu Gln  
 1285 1290 1295  
 Lys Ile Asp Val Gln Glu Ser Phe Cys Met Glu Glu Lys Gln Asn Lys  
 1300 1305 1310  
 Phe Gln Val Tyr Gln Leu Arg Phe Gln Phe Leu Pro His Ala Tyr Tyr  
 1315 1320 1325  
 Gln Gln Glu Lys Cys Leu Arg Pro Glu Asp Ile Leu Arg Phe Met Glu  
 1330 1335 1340  
 Thr Arg Phe Phe Lys Leu Leu Met Glu Ser Ile Lys Lys Lys Asn Asn  
 1345 1350 1355 1360  
 Lys Ala Ser Ala Phe Arg Asn Val Asn Thr Arg Arg Ala Thr Gln Arg  
 1365 1370 1375  
 Asp Leu Asp Asn Ala Gly Glu Leu Gly Arg Ser Arg Gly Glu Gln Glu  
 1380 1385 1390  
 Gly Asp Glu Glu Glu Glu Gly His Ile Val Asp Ala Glu Ala Glu Glu  
 1395 1400 1405  
 Gly Asp Ala Asp Ala Ser Asp Ala Lys Arg Lys Glu Lys Gln Glu Glu  
 1410 1415 1420  
 Glu Val Asp Tyr Glu Ser Glu Glu Glu Glu Glu Glu Gly Glu Glu  
 1425 1430 1435 1440  
 Asn Asp Asp Glu Asp Met Gln Glu Glu Arg Asn Pro His Arg Glu Gly  
 1445 1450 1455  
 Ala Arg Lys Thr Gln Glu Gln Asp Glu Glu Val Gly Leu Gly Thr Glu  
 1460 1465 1470  
 Glu Asp Pro Ser Leu Pro Ala Leu Leu Thr Gln Pro Arg Lys Pro Thr  
 1475 1480 1485  
 His Ser Gln Glu Pro Gln Gly Pro Glu Ala Met Glu Arg Arg Val Gln  
 1490 1495 1500  
 Ala Val Arg Glu Ile His Pro Phe Ile Asp Asp Tyr Gln Tyr Asp Thr  
 1505 1510 1515 1520  
 Glu Glu Ser Leu Trp Cys Gln Val Thr Val Lys Leu Pro Leu Met Lys  
 1525 1530 1535  
 Ile Asn Phe Asp Met Ser Ser Leu Val Val Ser Leu Ala His Gly Ala  
 1540 1545 1550  
 Val Ile Tyr Ala Thr Lys Gly Ile Thr Arg Cys Leu Leu Asn Glu Thr  
 1555 1560 1565  
 Thr Asn Asn Lys Asn Glu Lys Glu Leu Val Leu Asn Thr Glu Gly Ile  
 1570 1575 1580  
 Asn Leu Pro Glu Leu Phe Lys Tyr Ala Glu Val Leu Asp Leu Arg Arg  
 1585 1590 1595 1600  
 Leu Tyr Ser Asn Asp Ile His Ala Ile Ala Asn Thr Tyr Gly Ile Glu  
 1605 1610 1615  
 Ala Ala Leu Arg Val Ile Glu Lys Glu Ile Lys Asp Val Phe Ala Val  
 1620 1625 1630  
 Tyr Gly Ile Ala Val Asp Pro Arg His Leu Ser Leu Val Ala Asp Tyr  
 1635 1640 1645  
 Met Cys Phe Glu Gly Val Tyr Lys Pro Leu Asn Arg Phe Gly Ile Arg  
 1650 1655 1660  
 Ser Asn Ser Ser Pro Leu Gln Gln Met Thr Phe Glu Thr Ser Phe Gln  
 1665 1670 1675 1680  
 Phe Leu Lys Gln Ala Thr Met Leu Gly Ser His Asp Glu Leu Arg Ser  
 1685 1690 1695

Pro Ser Ala Cys Leu Val Val Gly Lys Val Val Arg Gly Gly Thr Gly  
 1700 1705 1710  
 Leu Phe Glu Leu Lys Gln Pro Leu Arg  
 1715 1720 1721

<210> 1422  
 <211> 792  
 <212> PRT  
 <213> Homo sapiens

<400> 1422  
 Met Glu Glu Lys Arg Arg Lys Tyr Ser Ile Ser Ser Asp Asn Ser Asp  
 1 5 10 15  
 Thr Thr Asp Ser His Ala Thr Ser Thr Ser Ala Ser Arg Cys Ser Lys  
 20 25 30  
 Leu Pro Ser Ser Thr Lys Ser Gly Trp Pro Arg Gln Asn Glu Lys Lys  
 35 40 45  
 Pro Ser Glu Val Phe Arg Thr Asp Leu Ile Thr Ala Met Lys Ile Pro  
 50 55 60  
 Asp Ser Tyr Gln Leu Ser Pro Asp Asp Tyr Tyr Ile Leu Ala Asp Pro  
 65 70 75 80  
 Trp Arg Gln Glu Trp Glu Lys Gly Val Gln Val Pro Ala Gly Ala Glu  
 85 90 95  
 Ala Ile Pro Glu Pro Val Val Arg Ile Leu Pro Pro Leu Glu Gly Pro  
 100 105 110  
 Pro Ala Gln Ala Ser Pro Ser Ser Thr Met Leu Gly Glu Gly Ser Gln  
 115 120 125  
 Pro Asp Trp Pro Gly Gly Ser Arg Tyr Asp Leu Asp Glu Ile Asp Ala  
 130 135 140  
 Tyr Trp Leu Glu Leu Ile Asn Ser Glu Leu Lys Glu Met Glu Arg Pro  
 145 150 155 160  
 Glu Leu Asp Glu Leu Thr Leu Glu Arg Val Leu Glu Glu Leu Glu Thr  
 165 170 175  
 Leu Cys His Gln Asn Met Ala Arg Ala Ile Glu Thr Gln Glu Gly Leu  
 180 185 190  
 Gly Ile Glu Tyr Asp Glu Asp Val Val Cys Asp Val Cys Arg Ser Pro  
 195 200 205  
 Glu Gly Glu Asp Gly Asn Glu Met Val Phe Cys Asp Lys Cys Asn Val  
 210 215 220  
 Cys Val His Gln Ala Cys Tyr Gly Ile Leu Lys Val Pro Thr Gly Ser  
 225 230 235 240  
 Trp Leu Cys Arg Thr Cys Ala Leu Gly Val Gln Pro Lys Cys Leu Leu  
 245 250 255  
 Cys Pro Lys Arg Gly Gly Ala Leu Lys Pro Thr Arg Ser Gly Thr Lys  
 260 265 270  
 Trp Val His Val Ser Cys Ala Leu Trp Ile Pro Glu Val Ser Ile Gly  
 275 280 285  
 Cys Pro Glu Lys Met Glu Pro Ile Thr Lys Ile Ser His Ile Pro Ala  
 290 295 300  
 Ser Arg Trp Ala Leu Ser Cys Ser Leu Cys Lys Glu Cys Thr Gly Thr  
 305 310 315 320  
 Cys Ile Gln Cys Ser Met Pro Ser Cys Val Thr Ala Phe His Val Thr  
 325 330 335  
 Cys Ala Phe Asp His Gly Leu Glu Met Arg Thr Ile Leu Ala Asp Asn  
 340 345 350  
 Asp Glu Val Lys Phe Lys Ser Phe Cys Gln Glu His Ser Asp Gly Gly  
 355 360 365  
 Pro Arg Asn Glu Pro Thr Ser Glu Pro Thr Glu Pro Ser Gln Ala Gly  
 370 375 380  
 Glu Asp Leu Glu Lys Val Thr Leu Arg Lys Gln Arg Leu Gln Gln Leu  
 385 390 395 400

Glu Glu Asp Phe Tyr Glu Leu Val Glu Pro Ala Glu Val Ala Glu Arg  
 405 410 415  
 Leu Asp Leu Ala Glu Ala Leu Val Asp Phe Ile Tyr Gln Tyr Trp Lys  
 420 425 430  
 Leu Lys Arg Lys Ala Asn Ala Asn Gln Pro Leu Leu Thr Pro Lys Thr  
 435 440 445  
 Asp Glu Val Asp Asn Leu Ala Gln Gln Glu Gln Asp Val Leu Tyr Arg  
 450 455 460  
 Arg Leu Lys Leu Phe Thr His Leu Arg Gln Asp Leu Glu Arg Val Arg  
 465 470 475 480  
 Asn Leu Cys Tyr Met Val Thr Arg Arg Glu Arg Thr Lys His Ala Ile  
 485 490 495  
 Cys Lys Leu Gln Glu Gln Ile Phe His Leu Gln Met Lys Leu Ile Glu  
 500 505 510  
 Gln Asp Leu Cys Arg Ala Gly Leu Ser Thr Ser Phe Pro Ile Asp Gly  
 515 520 525  
 Thr Phe Phe Asn Ser Trp Leu Ala Gln Ser Val Gln Ile Thr Ala Glu  
 530 535 540  
 Asn Met Ala Met Ser Glu Trp Pro Leu Asn Asn Gly His Arg Glu Asp  
 545 550 555 560  
 Pro Ala Pro Gly Leu Leu Ser Glu Glu Leu Leu Gln Asp Glu Glu Thr  
 565 570 575  
 Leu Leu Ser Phe Met Arg Asp Pro Ser Leu Arg Pro Gly Asp Pro Ala  
 580 585 590  
 Arg Lys Ala Arg Gly Arg Thr Arg Leu Pro Ala Lys Lys Lys Pro Pro  
 595 600 605  
 Pro Pro Pro Pro Gln Asp Gly Pro Gly Ser Arg Thr Thr Pro Asp Lys  
 610 615 620  
 Ala Pro Lys Lys Thr Trp Gly Gln Asp Ala Gly Ser Gly Lys Gly Gly  
 625 630 635 640  
 Gln Gly Pro Pro Thr Arg Lys Pro Pro Arg Arg Thr Ser Ser His Leu  
 645 650 655  
 Pro Ser Ser Pro Ala Ala Gly Asp Cys Pro Ile Leu Ala Thr Pro Glu  
 660 665 670  
 Ser Pro Pro Pro Leu Ala Pro Glu Thr Pro Asp Glu Ala Ala Ser Val  
 675 680 685  
 Ala Ala Asp Ser Asp Val Gln Val Pro Gly Pro Ala Ala Ser Pro Lys  
 690 695 700  
 Pro Leu Gly Arg Leu Arg Pro Pro Arg Glu Ser Lys Val Thr Arg Arg  
 705 710 715 720  
 Leu Pro Gly Ala Arg Pro Asp Ala Gly Met Gly Pro Pro Ser Ala Val  
 725 730 735  
 Ala Glu Arg Pro Lys Val Ser Leu His Phe Asp Thr Glu Thr Asp Gly  
 740 745 750  
 Tyr Phe Ser Asp Gly Glu Met Ser Asp Ser Asp Val Glu Ala Glu Asp  
 755 760 765  
 Gly Gly Val Gln Arg Gly Pro Arg Glu Ala Gly Ala Glu Glu Val Val  
 770 775 780  
 Arg Met Gly Val Leu Ala Ser \*  
 785 790 791

&lt;210&gt; 1423

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1423

Met Ser Gly Lys Lys Leu Phe Val Thr Asn Gly Glu Arg Met Pro Phe  
 1 5 10 15  
 Ser Lys Val Lys Ala Leu Cys Ala Gly Leu Gln Ala Thr Val Ala Ala  
 20 25 30



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Pro Lys Asn Ala Glu Glu Asn Lys Ala Ile Gln Asp Val Ala Lys Asp
   35           40           45
Thr Ala Phe Leu Gly Ile Thr Asp Glu Ala Thr Glu Gly Gln Phe Met
   50           55           60
Tyr Leu Thr Gly Gly Arg Leu Thr Tyr Ser Asn Trp Lys Lys Asp Glu
   65           70           75           80
Pro Asn Asp His Gly Ser Gly Glu Asp Cys Val Ile Leu Leu Asn Asn
           85           90           95
Gly Leu Trp Asn Gly Ile Ser Cys Thr Ser Ser Phe Ile Ala Ile Cys
   100           105           110
Glu Phe Pro Ala *
   115 116

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<210> 1424  
 <211> 506  
 <212> PRT  
 <213> Homo sapiens

```

<400> 1424
Met Thr Lys Ala Gln Glu Ser Leu Thr Leu Glu Asp Val Ala Val Asp
  1           5           10           15
Phe Thr Trp Glu Glu Trp Gln Phe Leu Ser Pro Ala Gln Lys Asp Leu
   20           25           30
Tyr Arg Asp Val Met Leu Glu Asn Tyr Ser Asn Leu Val Ser Val Gly
   35           40           45
Tyr Gln Ala Gly Lys Pro Asp Ala Leu Thr Lys Leu Glu Gln Gly Glu
   50           55           60
Pro Leu Trp Thr Leu Glu Asp Glu Ile His Ser Pro Ala His Pro Glu
   65           70           75           80
Ile Glu Lys Ala Asp Asp His Leu Gln Gln Pro Leu Gln Asn Gln Lys
           85           90           95
Ile Leu Lys Arg Thr Gly Gln Arg Tyr Glu His Gly Arg Thr Leu Lys
   100           105           110
Ser Tyr Leu Gly Leu Thr Asn Gln Ser Arg Arg Tyr Asn Arg Lys Glu
   115           120           125
Pro Ala Glu Phe Asn Gly Asp Gly Ala Phe Leu His Asp Asn His Glu
   130           135           140
Gln Met Pro Thr Glu Ile Glu Phe Pro Glu Ser Arg Lys Pro Ile Ser
   145           150           155           160
Thr Lys Ser Gln Phe Leu Lys His Gln Gln Thr His Asn Ile Glu Lys
           165           170           175
Ala His Glu Cys Thr Asp Cys Gly Lys Ala Phe Leu Lys Lys Ser Gln
   180           185           190
Leu Thr Glu His Lys Arg Ile His Thr Gly Lys Lys Pro His Val Cys
   195           200           205
Ser Leu Cys Gly Lys Ala Phe Tyr Lys Lys Tyr Arg Leu Thr Glu His
   210           215           220
Glu Arg Ala His Arg Gly Glu Lys Pro His Gly Cys Ser Leu Cys Gly
   225           230           235           240
Lys Ala Phe Tyr Lys Arg Tyr Arg Leu Thr Glu His Glu Arg Ala His
           245           250           255
Lys Gly Glu Lys Pro Tyr Gly Cys Ser Glu Cys Gly Lys Ala Phe Pro
   260           265           270
Arg Lys Ser Glu Leu Thr Glu His Gln Arg Ile His Thr Gly Ile Lys
   275           280           285
Pro His Gln Cys Ser Glu Cys Gly Arg Ala Phe Ser Arg Lys Ser Leu
   290           295           300
Leu Val Val His Gln Arg Thr His Thr Gly Glu Lys Pro His Thr Cys
   305           310           315           320
Ser Glu Cys Gly Lys Gly Phe Ile Gln Lys Gly Asn Leu Asn Ile His
           325           330           335

```

Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Gly Cys Ile Asp Cys Gly  
                   340                  345                  350  
 Lys Ala Phe Ser Gln Lys Ser Cys Leu Val Ala His Gln Arg Tyr His  
                   355                  360                  365  
 Thr Gly Lys Thr Pro Phe Val Cys Pro Glu Cys Gly Gln Pro Cys Ser  
                   370                  375                  380  
 Gln Lys Ser Gly Leu Ile Arg His Gln Lys Ile His Ser Gly Glu Lys  
                   385                  390                  395                  400  
 Pro Tyr Lys Cys Ser Asp Cys Gly Lys Ala Phe Leu Thr Lys Thr Met  
                   405                  410                  415  
 Leu Ile Val His His Arg Thr His Thr Gly Glu Arg Pro Tyr Gly Cys  
                   420                  425                  430  
 Asp Glu Cys Glu Lys Ala Tyr Phe Tyr Met Ser Cys Leu Val Lys His  
                   435                  440                  445  
 Lys Arg Ile His Ser Arg Glu Lys Arg Gly Asp Ser Val Lys Val Glu  
                   450                  455                  460  
 Asn Pro Ser Thr Ala Ser His Ser Leu Ser Pro Ser Glu His Val Gln  
                   465                  470                  475                  480  
 Gly Lys Ser Pro Val Asn Met Val Thr Val Ala Met Val Ala Gly Gln  
                   485                  490                  495  
 Cys Glu Phe Ala His Ile Leu His Ser \*  
                   500                  505

&lt;210&gt; 1425

&lt;211&gt; 406

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1425

Met Ala Ala Ser Gly Lys Thr Ser Lys Ser Glu Pro Asn His Val Ile  
   1                  5                  10                  15  
 Phe Lys Lys Ile Ser Arg Asp Lys Ser Val Thr Ile Tyr Leu Gly Asn  
                   20                  25                  30  
 Arg Asp Tyr Ile Asp His Val Ser Gln Val Gln Pro Val Asp Gly Val  
                   35                  40                  45  
 Val Leu Val Asp Pro Asp Leu Val Lys Gly Lys Lys Val Tyr Val Thr  
                   50                  55                  60  
 Leu Thr Cys Ala Phe Arg Tyr Gly Gln Glu Asp Ile Asp Val Ile Gly  
                   65                  70                  75                  80  
 Leu Thr Phe Arg Arg Asp Leu Tyr Phe Ser Arg Val Gln Val Tyr Pro  
                   85                  90                  95  
 Pro Val Gly Ala Ala Ser Thr Pro Thr Lys Leu Gln Glu Ser Leu Leu  
                   100                  105                  110  
 Lys Lys Leu Gly Ser Asn Thr Tyr Pro Phe Leu Leu Thr Phe Pro Asp  
                   115                  120                  125  
 Tyr Leu Pro Cys Ser Val Met Leu Gln Pro Ala Pro Gln Asp Ser Gly  
                   130                  135                  140  
 Lys Ser Cys Gly Val Asp Phe Glu Val Lys Ala Phe Ala Thr Asp Ser  
                   145                  150                  155                  160  
 Thr Asp Ala Glu Glu Asp Lys Ile Pro Lys Lys Ser Ser Val Arg Leu  
                   165                  170                  175  
 Leu Ile Arg Lys Val Gln His Ala Pro Leu Glu Met Gly Pro Gln Pro  
                   180                  185                  190  
 Arg Ala Glu Ala Ala Trp Gln Phe Met Ser Asp Lys Pro Leu His  
                   195                  200                  205  
 Leu Ala Val Ser Leu Asn Lys Glu Ile Tyr Phe His Gly Glu Pro Ile  
                   210                  215                  220  
 Pro Val Thr Val Thr Val Thr Asn Asn Thr Glu Lys Thr Val Lys Lys  
                   225                  230                  235                  240  
 Ile Lys Ala Phe Val Glu Gln Val Ala Asn Val Val Leu Tyr Ser Ser  
                   245                  250                  255

```

Asp Tyr Tyr Val Lys Pro Val Ala Met Glu Glu Ala Gln Glu Lys Val
      260      265      270
Pro Pro Asn Ser Thr Leu Thr Lys Thr Leu Thr Leu Leu Pro Leu Leu
      275      280      285
Ala Asn Asn Arg Glu Arg Arg Gly Ile Ala Leu Asp Gly Lys Ile Lys
      290      295      300
His Glu Asp Thr Asn Leu Ala Ser Ser Thr Ile Ile Lys Glu Gly Ile
305      310      315      320
Asp Arg Thr Val Leu Gly Ile Leu Val Ser Tyr Gln Ile Lys Val Lys
      325      330      335
Leu Thr Val Ser Gly Phe Leu Gly Glu Leu Thr Ser Ser Glu Val Ala
      340      345      350
Thr Glu Val Pro Phe Arg Leu Met His Pro Gln Pro Glu Asp Pro Ala
      355      360      365
Lys Glu Ser Tyr Gln Asp Ala Asn Leu Val Phe Glu Glu Phe Ala Arg
      370      375      380
His Asn Leu Lys Asp Ala Gly Glu Ala Glu Glu Gly Lys Arg Asp Lys
385      390      395      400
Asn Asp Ile Asp Glu *
      405

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<210> 1426
<211> 451
<212> PRT
<213> Homo sapiens

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      <400> 1426
Met Ala Ala Asp Gln Arg Pro Lys Ala Asp Thr Leu Ala Leu Arg Gln
 1      5      10      15
Arg Leu Ile Ser Ser Ser Cys Arg Leu Phe Phe Pro Glu Asp Pro Val
      20      25      30
Lys Ile Val Arg Ala Gln Gly Gln Tyr Met Tyr Asp Glu Gln Gly Ala
      35      40      45
Glu Tyr Ile Asp Cys Ile Ser Asn Val Ala His Val Gly His Cys His
      50      55      60
Pro Leu Val Val Gln Ala Ala His Glu Gln Asn Gln Val Leu Asn Thr
      65      70      75      80
Asn Ser Arg Tyr Leu His Asp Asn Ile Val Asp Tyr Ala Gln Arg Leu
      85      90      95
Ser Glu Thr Leu Pro Glu Gln Leu Cys Val Phe Tyr Phe Leu Asn Ser
      100      105      110
Gly Ser Glu Ala Asn Asp Leu Ala Leu Arg Leu Ala Arg His Tyr Thr
      115      120      125
Gly His Gln Asp Val Val Val Leu Asp His Ala Tyr His Gly His Leu
      130      135      140
Ser Ser Leu Ile Asp Ile Ser Pro Tyr Lys Phe Arg Asn Leu Asp Gly
145      150      155      160
Gln Lys Glu Trp Val His Val Ala Pro Leu Pro Asp Thr Tyr Arg Gly
      165      170      175
Pro Tyr Arg Glu Asp His Pro Asn Pro Ala Met Ala Tyr Ala Asn Glu
      180      185      190
Val Lys Arg Val Val Ser Ser Ala Gln Glu Lys Gly Arg Lys Ile Ala
      195      200      205
Ala Phe Phe Ala Glu Ser Leu Pro Ser Val Gly Gly Gln Ile Ile Pro
      210      215      220
Pro Ala Gly Tyr Phe Ser Gln Val Ala Glu His Ile Arg Lys Ala Gly
225      230      235      240
Gly Val Phe Val Ala Asn Glu Ile Gln Val Gly Phe Gly Arg Val Gly
      245      250      255
Lys His Phe Trp Ala Phe Gln Leu Gln Gly Lys Asp Phe Val Pro Asp
260      265      270

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```

Ile Val Thr Met Gly Lys Ser Ile Gly Asn Gly His Pro Val Ala Cys
      275      280      285
Val Ala Ala Thr Gln Pro Val Ala Arg Ala Phe Glu Ala Thr Gly Val
      290      295      300
Glu Tyr Phe Asn Thr Phe Gly Gly Ser Pro Val Ser Cys Ala Val Gly
305      310      315      320
Leu Ala Val Leu Asn Val Leu Glu Lys Glu Gln Leu Gln Asp His Ala
      325      330      335
Thr Ser Val Gly Ser Phe Leu Met Gln Leu Leu Gly Gln Gln Lys Ile
      340      345      350
Lys His Pro Ile Val Gly Asp Val Arg Gly Val Gly Leu Phe Ile Gly
      355      360      365
Val Asp Leu Ile Lys Asp Glu Ala Thr Arg Thr Pro Ala Thr Glu Glu
      370      375      380
Ala Ala Tyr Leu Val Ser Arg Leu Lys Glu Asn Tyr Val Leu Leu Ser
385      390      395      400
Thr Asp Gly Pro Gly Arg Asn Ile Leu Lys Phe Lys Pro Pro Met Cys
      405      410      415
Phe Ser Leu Asp Asn Ala Arg Gln Val Val Ala Lys Leu Asp Ala Ile
      420      425      430
Leu Thr Asp Met Glu Glu Lys Val Arg Ser Cys Glu Thr Leu Arg Leu
      435      440      445
Gln Pro *
      450

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&lt;210&gt; 1427

&lt;211&gt; 391

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1427

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Met Leu Ser Ser Arg Ala Glu Ala Ala Met Thr Ala Ala Asp Arg Ala
 1      5      10      15
Ile Gln Arg Phe Leu Arg Thr Gly Ala Ala Val Arg Tyr Lys Val Met
      20      25      30
Lys Asn Trp Gly Val Ile Gly Gly Ile Ala Ala Ala Leu Ala Ala Gly
      35      40      45
Ile Tyr Val Ile Trp Gly Pro Ile Thr Glu Arg Lys Lys Arg Arg Lys
      50      55      60
Gly Leu Val Pro Gly Leu Val Asn Leu Gly Asn Thr Cys Phe Met Asn
      65      70      75      80
Ser Leu Leu Gln Gly Leu Ser Ala Cys Pro Ala Phe Ile Gly Trp Leu
      85      90      95
Glu Glu Phe Thr Ser Gln Tyr Ser Arg Asp Gln Lys Glu Pro Pro Ser
      100      105      110
His Gln Tyr Leu Ser Leu Thr Leu Leu His Leu Leu Lys Ala Leu Ser
      115      120      125
Cys Gln Glu Val Thr Asp Asp Glu Val Leu His Ala Ser Cys Leu Leu
      130      135      140
Asp Val Leu Arg Met Tyr Arg Trp Gln Ile Ser Ser Phe Glu Glu Gln
145      150      155      160
Asp Ala His Glu Leu Phe His Val Ile Thr Ser Ser Leu Glu Asp Glu
      165      170      175
Arg Asp Arg Gln Pro Arg Val Thr His Leu Phe Asp Val His Ser Leu
      180      185      190
Glu Gln Gln Ser Glu Ile Thr Pro Lys Gln Ile Thr Cys Arg Thr Arg
      195      200      205
Gly Ser Pro His Pro Thr Ser Asn His Trp Lys Ser Gln His Pro Phe
      210      215      220
His Gly Arg Leu Thr Ser Asn Met Val Cys Lys His Cys Glu His Gln
225      230      235      240

```

Ser Pro Val Arg Phe Asp Thr Phe Asp Ser Leu Ser Leu Ser Ile Pro  
 245 250 255  
 Ala Ala Thr Trp Gly His Pro Leu Thr Leu Asp His Cys Leu His His  
 260 265 270  
 Phe Ile Ser Ser Glu Ser Val Arg Asp Val Val Cys Asp Asn Cys Thr  
 275 280 285  
 Lys Ile Glu Ala Lys Gly Thr Leu Asn Gly Glu Lys Val Glu His Gln  
 290 295 300  
 Arg Thr Thr Phe Val Lys Gln Leu Lys Leu Gly Lys Leu Pro Gln Cys  
 305 310 315 320  
 Leu Cys Ile His Leu Gln Arg Leu Ser Trp Ser Ser His Gly Thr Pro  
 325 330 335  
 Leu Lys Arg His Glu His Val Gln Phe Asn Glu Phe Leu Met Met Asp  
 340 345 350  
 Ile Tyr Lys Tyr His Leu Leu Gly His Lys Pro Ser Gln His Asn Pro  
 355 360 365  
 Lys Leu Asn Lys Asn Pro Gly Pro Thr Leu Glu Leu Gln Asp Gly Pro  
 370 375 380  
 Gly Ala Pro His Gln Phe \*  
 385 390

<210> 1428  
 <211> 505  
 <212> PRT  
 <213> Homo sapiens

<400> 1428  
 Met Tyr Ser Pro Leu Cys Leu Thr Gln Asp Glu Phe His Pro Phe Ile  
 1 5 10 15  
 Glu Ala Leu Leu Pro His Val Arg Ala Phe Ala Tyr Thr Trp Phe Asn  
 20 25 30  
 Leu Gln Ala Arg Lys Arg Lys Tyr Phe Lys Lys His Glu Lys Arg Met  
 35 40 45  
 Ser Lys Glu Glu Glu Arg Ala Val Lys Asp Glu Leu Leu Ser Glu Lys  
 50 55 60  
 Pro Glu Val Lys Gln Lys Trp Ala Ser Arg Leu Leu Ala Lys Leu Arg  
 65 70 75 80  
 Lys Asp Ile Arg Pro Glu Tyr Arg Glu Asp Phe Val Leu Thr Val Thr  
 85 90 95  
 Gly Lys Lys Pro Pro Cys Cys Val Leu Ser Asn Pro Asp Gln Lys Gly  
 100 105 110  
 Lys Met Arg Arg Ile Asp Cys Leu Arg Gln Ala Asp Lys Val Trp Arg  
 115 120 125  
 Leu Asp Leu Val Met Val Ile Leu Phe Lys Gly Ile Pro Leu Glu Ser  
 130 135 140  
 Thr Asp Gly Glu Arg Leu Val Lys Ser Pro Gln Cys Ser Asn Pro Gly  
 145 150 155 160  
 Leu Cys Val Gln Pro His His Ile Gly Val Ser Val Lys Glu Leu Asp  
 165 170 175  
 Leu Tyr Leu Ala Tyr Phe Val His Ala Ala Asp Ser Ser Gln Ser Glu  
 180 185 190  
 Ser Pro Ser Gln Pro Ser Asp Ala Asp Ile Lys Asp Gln Pro Glu Asn  
 195 200 205  
 Gly His Leu Gly Phe Gln Asp Ser Phe Val Thr Ser Gly Val Phe Ser  
 210 215 220  
 Val Thr Glu Leu Val Arg Val Ser Gln Thr Pro Ile Ala Ala Gly Thr  
 225 230 235 240  
 Gly Pro Asn Phe Ser Leu Ser Asp Leu Glu Ser Ser Ser Tyr Tyr Ser  
 245 250 255  
 Met Ser Pro Gly Ala Met Arg Arg Ser Leu Pro Ser Thr Ser Thr  
 260 265 270

```

Ser Ser Thr Lys Arg Leu Lys Ser Val Glu Asp Glu Met Asp Ser Pro
  275          280          285
Gly Glu Glu Pro Phe Tyr Thr Gly Gln Gly Arg Ser Pro Gly Ser Gly
  290          295          300
Ser Gln Ser Ser Gly Trp His Glu Val Glu Pro Gly Met Pro Ser Pro
  305          310          315          320
Thr Thr Leu Lys Lys Ser Glu Lys Ser Gly Phe Ser Ser Pro Ser Pro
          325          330          335
Ser Gln Thr Ser Ser Leu Gly Thr Ala Phe Thr Gln His His Arg Pro
          340          345          350
Val Ile Thr Gly Pro Arg Ala Ser Pro His Ala Thr Pro Ser Thr Leu
          355          360          365
His Phe Pro Thr Ser Pro Ile Ile Gln Gln Pro Gly Pro Tyr Phe Ser
          370          375          380
His Pro Ala Ile Arg Tyr His Pro Gln Glu Thr Leu Lys Glu Phe Val
          385          390          395          400
Gln Leu Val Cys Pro Asp Ala Gly Gln Gln Ala Gly Gln Pro Asn Gly
          405          410          415
Ser Ser Gln Gly Lys Val His Asn Pro Phe Leu Pro Thr Pro Met Leu
          420          425          430
Pro Pro Pro Pro Pro Pro Pro Met Ala Arg Pro Val Pro Leu Pro Val
          435          440          445
Pro Asp Thr Lys Pro Pro Thr Thr Ser Thr Glu Gly Gly Ala Ala Ser
          450          455          460
Pro Thr Ser Pro Thr Tyr Ser Thr Pro Ser Thr Ser Pro Ala Asn Arg
          465          470          475          480
Phe Val Ser Val Gly Pro Arg Asp Pro Ser Phe Val Asn Ile Pro Gln
          485          490          495
Gln Thr Gln Ser Trp Tyr Leu Gly *
          500          504

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<210> 1429  
 <211> 601  
 <212> PRT  
 <213> Homo sapiens

```

          <400> 1429
Met Arg Pro Pro Leu Trp Glu Pro Gln Leu Gln Ala Met Glu Glu Pro
  1          5          10          15
Pro Val Pro Val Ser Val Leu His Arg Phe Pro Phe Ser Ser Ala Leu
          20          25          30
Gln Arg Met Ser Val Val Val Ala Trp Pro Gly Ala Thr Gln Pro Glu
          35          40          45
Ala Tyr Val Lys Gly Ser Pro Glu Leu Val Ala Gly Leu Cys Asn Pro
          50          55          60
Glu Thr Val Pro Thr Asp Phe Ala Gln Met Leu Gln Ser Tyr Thr Ala
          65          70          75          80
Ala Gly Tyr Arg Val Val Ala Leu Ala Ser Lys Pro Leu Pro Thr Val
          85          90          95
Pro Ser Leu Glu Ala Ala Gln Gln Leu Thr Arg Asp Thr Val Glu Gly
          100          105          110
Asp Leu Ser Leu Leu Gly Leu Leu Val Met Arg Asn Leu Leu Lys Pro
          115          120          125
Gln Thr Thr Pro Val Ile Gln Ala Leu Arg Arg Thr Arg Ile Arg Ala
          130          135          140
Val Met Val Thr Gly Asp Asn Leu Gln Thr Ala Val Thr Val Ala Arg
          145          150          155          160
Gly Cys Gly Met Val Ala Pro Gln Glu His Leu Ile Ile Val His Ala
          165          170          175
Thr His Pro Glu Arg Gly Gln Pro Ala Ser Leu Glu Phe Leu Pro Met
          180          185          190

```

Glu Ser Pro Thr Ala Val Asn Gly Val Lys Asp Pro Asp Gln Ala Ala  
 195 200 205  
 Ser Tyr Thr Val Glu Pro Asp Pro Arg Ser Arg His Leu Ala Leu Ser  
 210 215 220  
 Gly Pro Thr Phe Gly Ile Ile Val Lys His Phe Pro Lys Leu Leu Pro  
 225 230 235 240  
 Lys Val Leu Val Gln Gly Thr Val Phe Ala Arg Met Ala Pro Glu Gln  
 245 250 255  
 Lys Thr Glu Leu Val Cys Glu Leu Gln Lys Leu Gln Tyr Cys Val Gly  
 260 265 270  
 Met Cys Gly Asp Gly Ala Asn Asp Cys Gly Ala Leu Lys Ala Ala Asp  
 275 280 285  
 Val Gly Ile Ser Leu Ser Gln Ala Glu Ala Ser Val Val Ser Pro Phe  
 290 295 300  
 Thr Ser Ser Met Ala Ser Ile Glu Cys Val Pro Met Val Ile Arg Glu  
 305 310 315 320  
 Gly Arg Cys Ser Leu Asp Thr Ser Phe Ser Val Phe Lys Tyr Met Ala  
 325 330 335  
 Leu Tyr Ser Leu Thr Gln Phe Ile Ser Val Leu Ile Leu Tyr Thr Ile  
 340 345 350  
 Asn Thr Asn Leu Gly Asp Leu Gln Phe Leu Ala Ile Asp Leu Val Ile  
 355 360 365  
 Thr Thr Thr Val Ala Val Leu Met Ser Arg Thr Gly Pro Ala Leu Val  
 370 375 380  
 Leu Gly Arg Val Arg Pro Pro Gly Ala Leu Leu Ser Val Pro Val Leu  
 385 390 395 400  
 Ser Ser Leu Leu Leu Gln Met Val Leu Val Thr Gly Val Gln Leu Gly  
 405 410 415  
 Gly Tyr Phe Leu Thr Leu Ala Gln Pro Trp Phe Val Pro Leu Asn Arg  
 420 425 430  
 Thr Val Ala Ala Pro Asp Asn Leu Pro Asn Tyr Glu Asn Thr Val Val  
 435 440 445  
 Phe Ser Leu Ser Ser Phe Gln Tyr Leu Ile Leu Ala Ala Ala Val Ser  
 450 455 460  
 Lys Gly Ala Pro Phe Arg Arg Pro Leu Tyr Thr Asn Glu Arg Ala Arg  
 465 470 475 480  
 Pro Val Pro Pro Arg Leu Pro Ala Pro Pro Ala Gln Ala Gly Leu  
 485 490 495  
 Gln Glu Ala Leu Gln Ala Ala Gly Thr Arg Ala Gly Arg Ala Ala Leu  
 500 505 510  
 Ala Ala Ala Ala Arg Arg Pro Pro Glu Val Val Gln Ala His Gly His  
 515 520 525  
 Pro Arg His Trp Asn Ser Leu Pro Leu Ser His Gln Leu Asp Pro Ser  
 530 535 540  
 Pro Ala Thr Pro Pro Pro Pro Pro Thr Ser Leu Arg Leu Ala Thr  
 545 550 555 560  
 Val Tyr Thr Pro Pro Pro Arg Pro Pro Pro Pro Trp Gly Ser Val Asp  
 565 570 575  
 Tyr Cys Pro Leu Pro Trp Thr Ile Pro Arg Arg Gly Gly Ser Pro Gln  
 580 585 590  
 Leu Pro Ser Val Leu Leu Ser Val \*  
 595 600

<210> 1430  
 <211> 53  
 <212> PRT  
 <213> Homo sapiens

<400> 1430  
 Met Leu Thr Gly Tyr Leu Tyr Leu Met Trp Arg Arg Lys Ala Phe Trp  
 1 5 10 15

Ser Gly Thr Gln Arg His Pro Leu Pro Gly Gly Leu Lys Arg Arg Arg  
 20 25 30  
 Arg Pro Gly Arg Gly Pro Trp Pro Ala Pro Gly Gly Gln Gly Val Gly  
 35 40 45  
 Pro Ser Ala Leu \*  
 50 52

&lt;210&gt; 1431

&lt;211&gt; 735

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1431

Met His Glu Ser Val His Val Gly Phe Leu Ser Ile Pro Ser Lys Glu  
 1 5 10 15  
 Lys Gly Leu Gly Leu Leu Gln Leu Gly Leu Leu Leu Pro Leu Asn Pro  
 20 25 30  
 Ile Gly Thr Tyr Ala His Thr Phe Gln Ser Phe Pro Asp Gln Cys Gln  
 35 40 45  
 His Ala Ala Leu Pro Leu Thr Lys Cys Thr Ile Asn Thr Ala Gln Ala  
 50 55 60  
 His Gly Ser His Lys Ala Ser His Leu Tyr Ser Met Gly His Ile Lys  
 65 70 75 80  
 Asn Asp Ser Ser Thr Ile Ile His Thr Asp Phe Ser His Thr Lys Pro  
 85 90 95  
 Leu Asn Lys Gln Gly Ser Val Ala Thr Glu Leu Ser Ile Ile Ile Ile  
 100 105 110  
 Ile Ile Ile Trp Leu Leu Leu Ala Arg Phe Ser Ser Tyr Arg Thr Leu  
 115 120 125  
 Leu His His His His His Leu Val Ala Phe Gly Lys Gln Gly Ser Val  
 130 135 140  
 Ala Thr Glu Leu Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser  
 145 150 155 160  
 Ser Gly Cys Phe Gln Gln Gly Ser Val Ala Thr Glu Leu Ser Ile Ile  
 165 170 175  
 Ile Ile Ile Ile Ile Ile Ile Ile Ile Ile Ile Trp Leu Leu Leu Ala  
 180 185 190  
 Arg Phe Ser Ser Tyr Arg Thr Leu Leu Leu Leu Leu Leu Leu Leu  
 195 200 205  
 Leu Leu Ile Ile Ile Ile Ile Ile Trp Leu Leu Leu Ala Arg Phe Ser  
 210 215 220  
 Ser Tyr Arg Thr Leu Leu Leu Leu Leu Leu Leu Ile Ile Ile Ile  
 225 230 235 240  
 Ile Trp Leu Leu Ser Ala Arg Phe Ser Ser Tyr Arg Thr Leu Leu His  
 245 250 255  
 His His Gln His His His Leu Val Ala Phe Gly Lys Gln Gly Ser Val  
 260 265 270  
 Ala Thr Glu Leu Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser  
 275 280 285  
 Ser Gly Cys Phe Gln Gln Gly Ser Val Ala Thr Glu Leu Ser Ile Ile  
 290 295 300  
 Ile Ile Ile Ile Ile Ile Ile Ile Ile Ile Ile Trp Leu Leu Leu Ala  
 305 310 315 320  
 Arg Phe Ser Ser Tyr Arg Thr Leu Leu His His His His His His  
 325 330 335  
 Leu Val Ala Phe Gly Lys Gln Gly Ser Val Ala Thr Glu Leu Ser Ile  
 340 345 350  
 Ile Ile Ile Ile Ile Ile Ile Ile Ile Ile Ile Trp Leu Leu Leu  
 355 360 365  
 Ala Arg Phe Ser Ser Tyr Arg Thr Leu Leu His His His His His  
 370 375 380



His Leu Val Ala Phe Gly Lys Ala Leu Ala Arg Ile Ile Trp Leu Tyr  
 385 390 395 400  
 Arg Asn Thr Tyr Ser Ile Gly Asn Gln Phe Gln Ser Lys Met Pro Glu  
 405 410 415  
 Tyr Tyr Ser Ser Thr Gln Cys Pro Ile Ser Leu Val Asp Tyr Lys Leu  
 420 425 430  
 Thr Thr Thr Thr Cys Leu Leu Trp Ile Gln Ser Pro Pro Lys Ser Glu  
 435 440 445  
 Ser Ser Leu Pro Gly Tyr Lys Pro Pro Ser Pro Gly Ser Ser Met Leu  
 450 455 460  
 Asp Ser Ser Leu Thr Ser Thr Ser Ser Asp His Trp Val Ala Leu Leu  
 465 470 475 480  
 Ala Val Leu Gln Pro Ser Ser Arg Ser Asp Thr His Pro Leu Ser Gly  
 485 490 495  
 Glu Pro Arg Pro Leu Leu Tyr Pro Leu Pro Asp Pro Ala Val Pro Phe  
 500 505 510  
 Trp Thr Leu Arg Thr Pro Leu Ser Pro Arg Thr Pro Tyr Arg Leu Phe  
 515 520 525  
 Leu Leu His Ser His Asn Ser Ala Arg Ala Pro Leu Arg Leu Cys Gly  
 530 535 540  
 Gln Arg Gly Arg Ala Gln Ala Ile Gly Ala Glu Glu Leu Pro Val Pro  
 545 550 555 560  
 Ala Val Asn Lys Thr Trp Thr Cys Glu Pro Gly Gln Lys Gly Phe Arg  
 565 570 575  
 Ser Ala Gly Asn Trp Arg Leu Ala Val Gly Val Asp Arg Arg Gly Asp  
 580 585 590  
 Trp Arg Leu Ser Asp Leu Leu Leu Phe Ala Asp Gln Ala Ala Val Gly  
 595 600 605  
 Ash Asp Gly Cys Pro Asp Pro Val Gly Gly Val Lys Glu Ser Cys Thr  
 610 615 620  
 Asp Thr Arg Thr Leu Thr Glu Gly Arg Val Arg Leu Arg Ala Pro His  
 625 630 635 640  
 Leu Val Ala Glu Arg Ser Ala Phe Arg Gly Arg Pro Pro Gly Thr Ser  
 645 650 655  
 Arg Arg Gly Pro Gly Phe Ile Leu Phe Ala Pro Phe Pro Pro Leu Lys  
 660 665 670  
 Ala Val Leu Asp Phe Leu Val Tyr Met Asp Lys Gly Tyr Asn Glu Gly  
 675 680 685  
 Asn Ile Leu Glu Ile Leu Ala Tyr Leu Val Val His Arg Ser Leu Asp  
 690 695 700  
 Phe Ile Gly Gln Gln Asn Leu Lys Gly Arg Glu Arg Glu Asn Lys Arg  
 705 710 715 720  
 Asp His His Met Glu Asp Lys Phe Asp Ala Ile Thr Ser Lys \*  
 725 730 734

&lt;210&gt; 1432

&lt;211&gt; 461

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1432

Met Ser Trp Pro Pro Ser Gly Glu Ile Ala Ser Pro Pro Glu Leu Pro  
 1 5 10 15  
 Ser Ser Pro Pro Gly Leu Pro Glu Val Ala Pro Asp Ala Thr Ser  
 20 25 30  
 Thr Gly Leu Pro Asp Thr Pro Ala Ala Pro Glu Thr Ser Thr Asn Tyr  
 35 40 45  
 Pro Val Glu Cys Thr Glu Gly Ser Ala Gly Pro Gln Ser Leu Pro Leu  
 50 55 60  
 Pro Ile Leu Glu Pro Val Lys Asn Pro Cys Ser Val Lys Asp Gln Thr  
 65 70 75 80

```

Pro Leu Gln Leu Ser Val Glu Asp Thr Thr Ser Pro Asn Thr Lys Pro
      85                      90                      95
Cys Pro Pro Thr Pro Thr Thr Pro Glu Thr Ser Pro Pro Pro Pro
      100                      105                      110
Pro Pro Pro Ser Ser Thr Pro Cys Ser Ala His Leu Thr Pro Ser Ser
      115                      120                      125
Leu Phe Pro Ser Ser Leu Glu Ser Ser Ser Glu Gln Lys Phe Tyr Asn
      130                      135                      140
Phe Val Ile Leu His Ala Arg Ala Asp Glu His Ile Ala Leu Arg Val
      145                      150                      155                      160
Arg Glu Lys Leu Glu Ala Leu Gly Val Pro Asp Gly Ala Thr Phe Cys
      165                      170                      175
Glu Asp Phe Gln Val Pro Gly Arg Gly Glu Leu Ser Cys Leu Gln Asp
      180                      185                      190
Ala Ile Asp His Ser Ala Phe Ile Ile Leu Leu Leu Thr Ser Asn Phe
      195                      200                      205
Asp Cys Arg Leu Ser Leu His Gln Val Asn Gln Ala Met Met Ser Asn
      210                      215                      220
Leu Thr Arg Gln Gly Ser Pro Asp Cys Val Ile Pro Phe Leu Pro Leu
      225                      230                      235                      240
Glu Ser Ser Pro Ala Arg Leu Ser Ser Asp Thr Ala Ser Leu Leu Ser
      245                      250                      255
Gly Leu Val Arg Leu Asp Glu His Ser Gln Ile Phe Ala Arg Lys Val
      260                      265                      270
Ala Asn Thr Phe Lys Pro His Arg Leu Gln Ala Arg Lys Ala Met Trp
      275                      280                      285
Arg Lys Glu Gln Asp Thr Arg Ala Leu Arg Glu Gln Ser Gln His Leu
      290                      295                      300
Asp Gly Glu Arg Met Gln Ala Ala Ala Leu Asn Ala Ala Tyr Ser Ala
      305                      310                      315                      320
Tyr Leu Gln Ser Tyr Leu Ser Tyr Gln Ala Gln Met Glu Gln Leu Gln
      325                      330                      335
Val Ala Phe Gly Ser His Met Ser Phe Gly Thr Gly Ala Pro Tyr Gly
      340                      345                      350
Ala Arg Met Pro Phe Gly Gly Gln Val Pro Leu Gly Ala Pro Pro Pro
      355                      360                      365
Phe Pro Thr Trp Pro Gly Cys Pro Gln Pro Pro Pro Leu His Ala Trp
      370                      375                      380
Gln Ala Gly Thr Pro Pro Pro Pro Ser Pro Gln Pro Ala Ala Phe Pro
      385                      390                      395                      400
Gln Ser Leu Pro Phe Pro Gln Ser Pro Ala Phe Pro Thr Ala Ser Pro
      405                      410                      415
Ala Pro Pro Gln Ser Pro Gly Leu Gln Pro Leu Ile Ile His His Ala
      420                      425                      430
Gln Met Val Gln Leu Gly Leu Asn Asn His Met Trp Asn Gln Arg Gly
      435                      440                      445
Ser Gln Ala Pro Glu Asp Lys Thr Gln Glu Ala Glu *
      450                      455                      460

```

<210> 1433  
 <211> 383  
 <212> PRT  
 <213> Homo sapiens

<400> 1433  
 Met Glu Lys Cys Ser Val Gly Gly Leu Glu Leu Thr Glu Gln Thr Pro  
 1 5 10 15  
 Ala Leu Leu Gly Asn Met Ala Met Ala Thr Ser Leu Met Asp Ile Gly  
 20 25 30  
 Asp Ser Phe Gly His Pro Ala Cys Pro Leu Val Ser Arg Ser Arg Asn  
 35 40 45

```

Ser Pro Val Glu Asp Asp Asp Asp Asp Asp Val Val Phe Ile Glu
  50          55          60
Ser Ile Gln Pro Pro Ser Ile Ser Ala Pro Ala Ile Ala Asp Gln Arg
  65          70          75          80
Asn Phe Ile Phe Ala Ser Ser Lys Asn Glu Lys Pro Gln Gly Asn Tyr
          85          90          95
Ser Val Ile Pro Pro Ser Ser Arg Asp Leu Ala Ser Gln Lys Gly Asn
          100          105          110
Ile Ser Glu Thr Ile Val Ile Asp Asp Glu Glu Asp Ile Glu Thr Asn
          115          120          125
Gly Gly Ala Glu Lys Lys Ser Ser Cys Phe Ile Glu Trp Gly Leu Pro
          130          135          140
Gly Thr Lys Asn Lys Thr Asn Asp Leu Asp Phe Ser Thr Ser Ser Leu
          145          150          155          160
Ser Arg Ser Lys Thr Lys Thr Gly Val Arg Pro Phe Asn Pro Gly Arg
          165          170          175
Met Asn Val Ala Gly Asp Leu Phe Gln Asn Gly Glu Phe Ala Thr His
          180          185          190
His Ser Pro Asp Ser Trp Ile Ser Gln Ser Ala Ser Phe Pro Ser Asn
          195          200          205
Gln Lys Gln Pro Gly Val Asp Ser Leu Ser Pro Val Ala Leu Leu Arg
          210          215          220
Lys Gln Asn Phe Gln Pro Thr Ala Gln Gln Gln Leu Thr Lys Pro Ala
          225          230          235          240
Lys Ile Thr Cys Ala Asn Cys Lys Lys Pro Leu Gln Lys Gly Gln Thr
          245          250          255
Ala Tyr Gln Arg Lys Gly Ser Ala His Leu Phe Cys Ser Thr Thr Cys
          260          265          270
Leu Ser Ser Phe Ser His Lys Arg Thr Gln Asn Thr Arg Ser Ile Ile
          275          280          285
Cys Lys Lys Asp Ala Ser Thr Lys Lys Ala Asn Val Ile Leu Pro Val
          290          295          300
Glu Ser Ser Lys Ser Phe Gln Glu Phe Tyr Ser Thr Ser Cys Leu Ser
          305          310          315          320
Pro Cys Glu Asn Asn Trp Asn Leu Lys Lys Gly Val Phe Asn Lys Ser
          325          330          335
Arg Cys Thr Ile Cys Ser Lys Leu Ala Glu Val Trp Ile Phe Ile Pro
          340          345          350
Lys Leu Leu Phe Arg Leu Thr Val Ile Ile Leu Thr Phe Lys Cys Tyr
          355          360          365
Tyr Val Leu Phe His Leu His Asn Ala Arg Val Leu Asp Val *
          370          375          380          382

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&lt;210&gt; 1434

&lt;211&gt; 288

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1434

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Met Glu Lys Cys Ser Val Gly Gly Leu Glu Leu Thr Glu Gln Thr Pro
  1          5          10          15
Ala Leu Leu Gly Asn Met Ala Met Ala Thr Ser Leu Met Asp Ile Gly
          20          25          30
Asp Ser Phe Gly His Pro Ala Cys Pro Leu Val Ser Arg Ser Arg Asn
          35          40          45
Ser Pro Val Glu Asp Asp Asp Asp Asp Asp Val Val Phe Ile Glu
          50          55          60
Ser Ile Gln Pro Pro Ser Ile Ser Ala Pro Ala Ile Ala Asp Gln Arg
          65          70          75          80
Asn Phe Ile Phe Ala Ser Ser Lys Asn Glu Lys Pro Gln Gly Asn Tyr
          85          90          95

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Ser Val Ile Pro Pro Ser Ser Arg Asp Leu Ala Ser Gln Lys Gly Asn
      100      105      110
Ile Ser Glu Thr Ile Val Ile Asp Asp Glu Glu Asp Ile Glu Thr Asn
      115      120      125
Gly Gly Ala Glu Lys Lys Ser Ser Cys Phe Ile Glu Trp Gly Leu Pro
      130      135      140
Gly Thr Lys Asn Lys Thr Asn Asp Leu Asp Phe Ser Thr Ser Ser Leu
145      150      155      160
Ser Arg Ser Lys Thr Lys Thr Gly Val Arg Pro Phe Asn Pro Gly Arg
      165      170      175
Met Asn Val Ala Gly Asp Leu Phe Gln Asn Gly Glu Phe Ala Thr His
      180      185      190
His Ser Pro Asp Asp Ala Ser Thr Lys Lys Ala Asn Val Ile Leu Pro
      195      200      205
Val Glu Ser Ser Lys Ser Phe Gln Glu Phe Tyr Arg Thr Ser Cys Leu
      210      215      220
Ser Pro Cys Glu Asn Asn Trp Asn Leu Lys Lys Gly Val Phe Asn Lys
225      230      235      240
Ser Arg Cys Thr Ile Cys Ser Lys Leu Ala Glu Val Trp Ile Phe Ile
      245      250      255
Pro Lys Leu Leu Phe Arg Leu Thr Val Ile Ile Leu Thr Phe Lys Cys
      260      265      270
Tyr Tyr Gly Leu Phe His Leu His Asn Ala Arg Val Leu Asp Val *
      275      280      285      287

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<210> 1435
<211> 723
<212> PRT
<213> Homo sapiens

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```

<400> 1435
Met Ser Leu Ser Met Arg Asp Pro Val Ile Pro Gly Thr Ser Met Ala
 1      5      10      15
Tyr His Pro Phe Leu Pro His Arg Ala Pro Asp Phe Ala Met Ser Ala
      20      25      30
Val Leu Gly His Gln Pro Pro Phe Phe Pro Ala Leu Thr Leu Pro Pro
      35      40      45
Asn Gly Ala Ala Ala Leu Ser Leu Pro Gly Ala Leu Ala Lys Pro Ile
      50      55      60
Met Asp Gln Leu Val Gly Ala Ala Glu Thr Gly Ile Pro Phe Ser Ser
65      70      75      80
Leu Gly Pro Gln Ala His Leu Arg Pro Leu Lys Thr Met Glu Pro Glu
      85      90      95
Glu Glu Val Glu Asp Asp Pro Lys Val His Leu Glu Ala Lys Glu Leu
      100      105      110
Trp Asp Gln Phe His Lys Arg Gly Thr Glu Met Val Ile Thr Lys Ser
      115      120      125
Gly Arg Arg Met Phe Pro Pro Phe Lys Val Arg Cys Ser Gly Leu Asp
      130      135      140
Lys Lys Ala Lys Tyr Ile Leu Leu Met Asp Ile Ile Ala Ala Asp Asp
145      150      155      160
Cys Arg Tyr Lys Phe His Asn Ser Arg Trp Met Val Ala Gly Lys Ala
      165      170      175
Asp Pro Glu Met Pro Lys Arg Met Tyr Ile His Pro Asp Ser Pro Ala
      180      185      190
Thr Gly Glu Gln Trp Met Ser Lys Val Val Thr Phe His Lys Leu Lys
      195      200      205
Leu Thr Asn Asn Ile Ser Asp Lys His Gly Phe Thr Ile Leu Asn Ser
      210      215      220
Met His Lys Tyr Gln Pro Arg Phe His Ile Val Arg Ala Asn Asp Ile
225      230      235      240

```

Leu Lys Leu Pro Tyr Ser Thr Phe Arg Thr Tyr Leu Phe Pro Glu Thr  
 245 250 255  
 Glu Phe Ile Ala Val Thr Ala Tyr Gln Asn Asp Lys Ile Thr Gln Leu  
 260 265 270  
 Lys Ile Asp Asn Asn Pro Phe Ala Lys Gly Phe Arg Asp Thr Gly Asn  
 275 280 285  
 Gly Arg Arg Glu Lys Arg Lys Gln Leu Thr Leu Gln Ser Met Arg Val  
 290 295 300  
 Phe Asp Glu Arg His Lys Lys Glu Asn Gly Thr Ser Asp Glu Ser Ser  
 305 310 315 320  
 Ser Glu Gln Ala Ala Phe Asn Cys Phe Ala Gln Ala Ser Ser Pro Ala  
 325 330 335  
 Ala Ser Thr Val Gly Thr Ser Asn Leu Lys Asp Leu Cys Pro Ser Glu  
 340 345 350  
 Gly Glu Ser Asp Ala Glu Ala Glu Ser Lys Glu Glu His Gly Pro Glu  
 355 360 365  
 Ala Cys Asp Ala Ala Lys Ile Ser Thr Thr Thr Ser Glu Glu Pro Cys  
 370 375 380  
 Arg Asp Lys Gly Ser Pro Ala Val Lys Ala His Leu Phe Ala Ala Glu  
 385 390 395 400  
 Arg Pro Arg Asp Ser Gly Arg Leu Asp Lys Ala Ser Pro Asp Ser Arg  
 405 410 415  
 His Ser Pro Ala Thr Ile Ser Ser Ser Thr Arg Gly Leu Gly Ala Glu  
 420 425 430  
 Glu Arg Arg Ser Pro Val Arg Glu Gly Thr Ala Pro Ala Lys Val Glu  
 435 440 445  
 Glu Ala Arg Ala Leu Pro Gly Lys Glu Ala Phe Ala Pro Leu Thr Val  
 450 455 460  
 Gln Thr Asp Ala Ala Ala His Leu Ala Gln Gly Pro Leu Pro Gly  
 465 470 475 480  
 Leu Gly Phe Ala Pro Gly Leu Ala Gly Gln Gln Phe Phe Asn Gly His  
 485 490 495  
 Pro Leu Phe Leu His Pro Ser Gln Phe Ala Met Gly Gly Ala Phe Ser  
 500 505 510  
 Ser Met Ala Ala Ala Gly Met Gly Pro Leu Leu Ala Thr Val Ser Gly  
 515 520 525  
 Ala Ser Thr Gly Val Ser Gly Leu Asp Ser Thr Ala Met Ala Ser Ala  
 530 535 540  
 Ala Ala Ala Gln Gly Leu Ser Gly Ala Ser Ala Ala Thr Leu Pro Phe  
 545 550 555 560  
 His Leu Gln Gln His Val Leu Ala Ser Gln Gly Leu Ala Met Ser Pro  
 565 570 575  
 Phe Gly Ser Leu Phe Pro Tyr Pro Tyr Thr Tyr Met Ala Ala Ala  
 580 585 590  
 Ala Ala Ser Leu Arg Gln Pro Gln Leu Arg Cys Thr Ala Pro Leu Leu  
 595 600 605  
 Asn Leu Asn Thr Met Arg Pro Arg Leu Arg Tyr Ser Pro Tyr Ser Ile  
 610 615 620  
 Pro Val Pro Val Pro Asp Gly Ser Ser Leu Leu Thr Thr Ala Leu Pro  
 625 630 635 640  
 Ser Met Ala Ala Ala Ala Gly Pro Leu Asp Gly Lys Val Ala Ala Leu  
 645 650 655  
 Ala Ala Ser Pro Ala Ser Val Ala Val Asp Ser Gly Ser Glu Leu Thr  
 660 665 670  
 Ser Arg Ser Ser Thr Leu Ser Ser Ser Ser Met Ser Leu Ser Pro Lys  
 675 680 685  
 Leu Cys Ala Glu Lys Glu Ala Ala Thr Ser Glu Leu Gln Ser Ile Gln  
 690 695 700  
 Arg Leu Val Ser Gly Leu Glu Ala Lys Pro Asp Arg Ser Arg Ser Ala  
 705 710 715 720  
 Ser Pro \*  
 722

<210> 1436  
 <211> 343  
 <212> PRT  
 <213> Homo sapiens

<400> 1436  
 Met Ala Gln Val Leu Ile Val Gly Ala Gly Met Thr Gly Ser Leu Cys  
 1 5 10 15  
 Ala Ala Leu Leu Arg Arg Gln Thr Ser Gly Pro Leu Tyr Leu Ala Val  
 20 25 30  
 Trp Asp Lys Ala Glu Asp Ser Gly Gly Arg Met Thr Thr Ala Cys Ser  
 35 40 45  
 Pro His Asn Pro Gln Cys Thr Ala Asp Leu Gly Ala Gln Tyr Ile Thr  
 50 55 60  
 Cys Thr Pro His Tyr Ala Lys Lys His Gln Arg Phe Tyr Asp Glu Leu  
 65 70 75 80  
 Leu Ala Tyr Gly Val Leu Arg Pro Leu Ser Ser Pro Ile Glu Gly Met  
 85 90 95  
 Val Met Lys Glu Gly Asp Cys Asn Phe Val Ala Pro Gln Gly Ile Ser  
 100 105 110  
 Ser Ile Ile Lys His Tyr Leu Lys Glu Ser Gly Ala Glu Val Tyr Phe  
 115 120 125  
 Arg His Arg Val Thr Gln Ile Asn Leu Arg Asp Asp Lys Trp Glu Val  
 130 135 140  
 Ser Lys Gln Thr Gly Ser Pro Glu Gln Phe Asp Leu Ile Val Leu Thr  
 145 150 155 160  
 Met Pro Val Pro Glu Ile Leu Gln Leu Gln Gly Asp Ile Thr Thr Leu  
 165 170 175  
 Ile Ser Glu Cys Gln Arg Gln Gln Leu Glu Ala Val Ser Tyr Ser Ser  
 180 185 190  
 Arg Tyr Ala Leu Gly Leu Phe Tyr Glu Ala Gly Thr Lys Ile Asp Val  
 195 200 205  
 Pro Trp Ala Gly Gln Tyr Ile Thr Ser Asn Pro Cys Ile Arg Phe Val  
 210 215 220  
 Ser Ile Asp Asn Lys Lys Arg Asn Ile Glu Ser Ser Glu Ile Gly Pro  
 225 230 235 240  
 Ser Leu Val Ile His Thr Thr Val Pro Phe Gly Val Thr Tyr Leu Glu  
 245 250 255  
 His Ser Ile Glu Asp Val Gln Glu Leu Val Phe Gln Gln Leu Glu Asn  
 260 265 270  
 Ile Leu Pro Gly Leu Pro Gln Pro Ile Ala Thr Lys Cys Gln Lys Trp  
 275 280 285  
 Arg His Ser Gln Val Thr Asn Ala Ala Ala Asn Cys Pro Gly Gln Met  
 290 295 300  
 Thr Leu His His Lys Pro Phe Leu Ala Cys Gly Gly Asp Gly Phe Thr  
 305 310 315 320  
 Gln Ser Asn Phe Asp Gly Cys Ile Thr Ser Ala Leu Cys Val Leu Glu  
 325 330 335  
 Ala Leu Lys Asn Tyr Ile \*  
 340 342

<210> 1437  
 <211> 256  
 <212> PRT  
 <213> Homo sapiens

<400> 1437  
 Met Leu Ser Val Ala Ala Arg Ser Gly Pro Phe Ala Pro Val Leu Ser  
 1 5 10 15

```

Ala Thr Pro Glu Gln Pro Val Leu Asp Leu Lys Arg Pro Phe Leu Ser
      20      25      30
Arg Glu Ser Leu Ser Gly Gln Ala Val Arg Arg Pro Leu Val Ala Ser
      35      40      45
Val Gly Leu Asn Val Pro Ala Ser Val Cys Tyr Ser His Thr Asp Ile
      50      55      60
Lys Val Pro Asp Phe Ser Glu Tyr Arg Arg Leu Glu Val Leu Asp Ser
      65      70      75      80
Thr Lys Ser Ser Arg Glu Ser Ser Glu Ala Arg Lys Gly Phe Ser Tyr
      85      90      95
Leu Val Thr Gly Val Thr Thr Val Gly Val Ala Tyr Ala Ala Lys Asn
      100      105      110
Ala Val Thr Gln Phe Val Ser Ser Met Ser Ala Ser Ala Asp Val Leu
      115      120      125
Ala Leu Ala Lys Ile Glu Ile Lys Leu Ser Asp Ile Pro Glu Gly Lys
      130      135      140
Asn Met Ala Phe Lys Trp Arg Gly Lys Pro Leu Phe Val Arg His Arg
      145      150      155      160
Thr Gln Lys Glu Ile Glu Gln Glu Ala Ala Val Glu Leu Ser Gln Leu
      165      170      175
Arg Asp Pro Gln His Asp Leu Asp Arg Val Lys Lys Pro Glu Trp Val
      180      185      190
Ile Leu Ile Gly Val Cys Thr His Leu Gly Cys Val Pro Ile Ala Asn
      195      200      205
Ala Gly Asp Phe Gly Gly Tyr Tyr Cys Pro Cys His Gly Ser His Tyr
      210      215      220
Asp Ala Ser Gly Arg Ile Arg Leu Gly Pro Ala Pro Leu Asn Leu Glu
      225      230      235      240
Val Pro Thr Tyr Glu Phe Thr Ser Asp Asp Met Val Ile Val Gly *
      245      250      255

```

<210> 1438  
 <211> 655  
 <212> PRT  
 <213> Homo sapiens

```

      <400> 1438
Met Trp Val Gly Arg Gln Arg Asp Ser Gly Val Leu Ser Arg Pro Cys
  1      5      10      15
Pro Ser Thr Ala Ala Leu Pro Glu Ala Leu Leu Cys Ser Ser Ala Pro
      20      25      30
Ala Ala Arg Arg Pro Ser Leu Cys Gly Ala Thr Gly Gly Ser Cys Ala
      35      40      45
Asp Phe Asp Ser Gly Val Asp Phe Val Arg Arg Glu Ser Ser Gly Leu
      50      55      60
Trp Gly Pro Gln Pro Pro Leu Ser Pro Val Lys Asn Tyr Thr Glu Met
      65      70      75      80
Phe Gln Asp Pro Val Ala Phe Lys Asp Val Ala Val Asn Phe Thr Gln
      85      90      95
Glu Glu Trp Ala Leu Leu Asp Ile Ser Gln Lys Asn Leu Tyr Arg Glu
      100      105      110
Val Met Leu Glu Thr Phe Trp Asn Leu Thr Ser Ile Gly Lys Lys Trp
      115      120      125
Lys Asp Gln Asn Ile Glu Tyr Glu Tyr Gln Asn Pro Arg Arg Asn Phe
      130      135      140
Arg Ser Val Thr Glu Glu Lys Val Asn Glu Ile Lys Glu Asp Ser His
      145      150      155      160
Cys Gly Glu Thr Phe Thr Pro Val Pro Asp Asp Arg Leu Asn Phe Gln
      165      170      175
Lys Lys Lys Ala Ser Pro Glu Val Lys Ser Cys Asp Ser Phe Val Cys
      180      185      190

```

Glu	Val	Gly	Leu	Gly	Asn	Ser	Ser	Ser	Asn	Met	Asn	Ile	Arg	Gly	Asp	195	200	205
Thr	Gly	His	Lys	Ala	Cys	Glu	Cys	Gln	Glu	Tyr	Gly	Pro	Lys	Pro	Trp	210	215	220
Lys	Ser	Gln	Gln	Pro	Lys	Lys	Ala	Phe	Arg	Tyr	His	Pro	Ser	Leu	Arg	225	230	235
Thr	Gln	Glu	Arg	Asp	His	Thr	Gly	Lys	Lys	Pro	Tyr	Ala	Cys	Lys	Glu	245	250	255
Cys	Gly	Lys	Asn	Ile	Ile	Tyr	His	Ser	Ser	Ile	Gln	Arg	His	Met	Val	260	265	270
Val	His	Ser	Gly	Asp	Gly	Pro	Tyr	Lys	Cys	Lys	Phe	Cys	Gly	Lys	Ala	275	280	285
Phe	His	Cys	Leu	Ser	Leu	Tyr	Leu	Ile	His	Glu	Arg	Thr	His	Thr	Gly	290	295	300
Glu	Lys	Pro	Tyr	Glu	Cys	Lys	Gln	Cys	Gly	Lys	Ser	Phe	Ser	Tyr	Ser	305	310	315
Ala	Thr	His	Arg	Ile	His	Glu	Arg	Thr	His	Ile	Gly	Glu	Lys	Pro	Tyr	325	330	335
Glu	Cys	Gln	Glu	Cys	Gly	Lys	Ala	Phe	His	Ser	Pro	Arg	Ser	Cys	His	340	345	350
Arg	His	Glu	Arg	Ser	His	Met	Gly	Glu	Lys	Ala	Tyr	Gln	Cys	Lys	Glu	355	360	365
Cys	Gly	Lys	Ala	Phe	Met	Cys	Pro	Arg	Tyr	Val	Arg	Arg	His	Glu	Arg	370	375	380
Thr	His	Ser	Arg	Lys	Lys	Leu	Tyr	Glu	Cys	Lys	Gln	Cys	Gly	Lys	Ala	385	390	395
Leu	Ser	Ser	Leu	Thr	Ser	Phe	Gln	Thr	His	Ile	Arg	Met	His	Ser	Gly	405	410	415
Glu	Arg	Pro	Tyr	Glu	Cys	Lys	Thr	Cys	Gly	Lys	Gly	Phe	Tyr	Ser	Ala	420	425	430
Lys	Ser	Phe	Gln	Arg	His	Glu	Lys	Thr	His	Ser	Gly	Glu	Lys	Pro	Tyr	435	440	445
Lys	Cys	Lys	Gln	Cys	Gly	Lys	Ala	Phe	Thr	Arg	Ser	Gly	Ser	Phe	Arg	450	455	460
Tyr	His	Glu	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Lys	Gln	465	470	475
Cys	Gly	Lys	Ala	Phe	Arg	Ser	Ala	Pro	Asn	Leu	Gln	Ser	His	Gly	Arg	485	490	495
Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Gln	Cys	Lys	Glu	Cys	Gly	Lys	Ala	500	505	510
Phe	Arg	Ser	Ala	Ser	Gln	Leu	Arg	Ile	His	Arg	Arg	Ile	His	Thr	Gly	515	520	525
Glu	Lys	Pro	Tyr	Glu	Cys	Lys	Lys	Cys	Gly	Lys	Ala	Phe	Arg	Tyr	Val	530	535	540
Gln	Asn	Phe	Arg	Phe	His	Glu	Arg	Thr	His	Asn	Gly	Glu	Lys	Pro	Tyr	545	550	555
Glu	Cys	Lys	Glu	Cys	Arg	Lys	Ala	Phe	Ser	Leu	Pro	Thr	Ser	Phe	His	565	570	575
Arg	His	Glu	Lys	Thr	Leu	Glu	Gly	Asn	Pro	Met	Lys	Ala	Ser	Asn	Val	580	585	590
Ala	Lys	Leu	Ser	Leu	Leu	Pro	Val	Leu	Phe	Asn	Ile	Met	Lys	Glu	Phe	595	600	605
Thr	Leu	Gly	Arg	Asn	Pro	Ile	Ser	Val	Ser	Asn	Val	Arg	Lys	Pro	Leu	610	615	620
Phe	Leu	Pro	Leu	Leu	Phe	Asn	Ile	Met	Lys	Gly	Leu	Thr	Trp	Glu	Arg	625	630	635
Asn	Pro	Met	Ser	Val	Cys	His	Val	Gly	Lys	Pro	Ser	Phe	Phe	*		645	650	654

&lt;210&gt; 1439

&lt;211&gt; 297

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 1439

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Met Leu Leu Gly Ser Leu Leu Pro Val Lys Ile Ile Glu Thr Asp Phe
 1           5           10           15
Glu Lys Ala His Arg Ser Lys Lys Ile Leu Ser Leu Cys Asn Thr Phe
          20           25           30
Gly Gly Gly Val Phe Leu Ala Thr Cys Phe Asn Ala Leu Leu Pro Ala
          35           40           45
Val Arg Glu Lys Leu Gln Lys Val Leu Ser Leu Gly His Ile Ser Thr
          50           55           60
Asp Tyr Pro Leu Ala Glu Thr Ile Leu Leu Leu Gly Phe Phe Met Thr
          65           70           75           80
Val Phe Leu Glu Gln Leu Ile Leu Thr Phe Arg Lys Glu Lys Pro Ser
          85           90           95
Phe Ile Asp Leu Glu Thr Phe Asn Ala Gly Ser Asp Val Gly Ser Asp
          100          105          110
Ser Glu Tyr Glu Ser Pro Phe Met Gly Gly Ala Arg Gly His Ala Leu
          115          120          125
Tyr Val Glu Pro His Gly His Gly Pro Ser Leu Ser Val Gln Gly Leu
          130          135          140
Ser Arg Ala Ser Pro Val Arg Leu Leu Ser Leu Ala Phe Ala Leu Ser
          145          150          155          160
Ala His Ser Val Phe Glu Gly Leu Ala Leu Gly Leu Gln Glu Glu Gly
          165          170          175
Glu Lys Val Val Ser Leu Phe Val Gly Val Ala Val His Glu Thr Leu
          180          185          190
Val Ala Val Ala Leu Gly Ile Ser Met Ala Arg Ser Ala Met Pro Leu
          195          200          205
Arg Asp Ala Ala Lys Leu Ala Val Thr Val Ser Ala Met Ile Pro Leu
          210          215          220
Gly Ile Gly Leu Gly Leu Gly Ile Glu Ser Ala Gln Gly Val Pro Gly
          225          230          235          240
Ser Val Ala Ser Val Leu Leu Gln Gly Leu Ala Gly Gly Thr Phe Leu
          245          250          255
Phe Ile Thr Phe Leu Glu Ile Leu Ala Lys Glu Leu Glu Glu Lys Ser
          260          265          270
Asp Arg Leu Leu Lys Val Leu Phe Leu Val Leu Gly Tyr Thr Val Leu
          275          280          285
Ala Gly Met Val Phe Leu Lys Trp *
          290          295 296

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&lt;210&gt; 1440

&lt;211&gt; 1452

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1440

```

Met Thr Arg Gly Lys Ser Leu Asp Phe Ser Ala Pro Gln Phe Pro His
 1           5           10           15
Leu Glu Ser Arg Asn Asp Asn Arg Thr Cys His Trp Cys Asp Thr Glu
          20           25           30
Ile His Ile Val Asn Ala Thr Ile Ser Asp Thr Asp Cys Met Lys Ser
          35           40           45
Ala Met Val Val Ala Leu Ser Lys Arg Ser Gln Glu Ala Glu Ala Ala
          50           55           60
Phe Leu Ser Val Tyr Lys Gln Leu Ile Glu Ala Pro Ala Leu Trp Glu
          65           70           75           80
Leu Lys Leu Lys Ser Arg Pro Ala Leu Gly Asp Ser Arg Val Gln Gln
          85           90           95

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Gly	Gln	His	Asp	Pro	Lys	Thr	Asp	Asn	Gln	Asn	Thr	Gln	Gln	Lys	Ala	100	105	110
Gly	Phe	Lys	Glu	Gly	Trp	Leu	Ala	Glu	Ala	Ser	Glu	Arg	Glu	Ala	Phe	115	120	125
Gly	Pro	Gly	Phe	Lys	Asp	Pro	Val	Pro	Val	Phe	Glu	Ala	Ala	Arg	Ser	130	135	140
Leu	Asp	Asp	Arg	Leu	Gln	Pro	Pro	Ser	Phe	Asp	Pro	Ser	Gly	Gln	Pro	145	150	155
Arg	Arg	Asp	Leu	His	Thr	Ser	Trp	Lys	Arg	Asn	Pro	Glu	Leu	Leu	Ser	165	170	175
Pro	Lys	Ala	Leu	Lys	Ala	Thr	Gln	Ala	Glu	Leu	Leu	Glu	Leu	Arg	Arg	180	185	190
Lys	Tyr	Asp	Glu	Glu	Ala	Ala	Ser	Lys	Ala	Asp	Glu	Val	Gly	Leu	Ile	195	200	205
Met	Thr	Asn	Leu	Glu	Lys	Ala	Asn	Gln	Arg	Ala	Glu	Ala	Ala	Gln	Arg	210	215	220
Glu	Val	Glu	Ser	Leu	Arg	Glu	Gln	Leu	Ala	Ser	Val	Asn	Ser	Ser	Ile	225	230	235
Arg	Leu	Ala	Cys	Cys	Ser	Pro	Gln	Gly	Pro	Ser	Gly	Asp	Lys	Val	Asn	245	250	255
Phe	Thr	Leu	Cys	Ser	Gly	Pro	Arg	Leu	Glu	Ala	Ala	Leu	Ala	Ser	Lys	260	265	270
Asp	Arg	Glu	Ile	Leu	Arg	Leu	Leu	Lys	Asp	Val	Gln	His	Leu	Gln	Ser	275	280	285
Ser	Leu	Gln	Glu	Leu	Glu	Glu	Ala	Ser	Ala	Asn	Gln	Ile	Ala	Asp	Leu	290	295	300
Glu	Arg	Gln	Leu	Thr	Ala	Lys	Ser	Glu	Ala	Ile	Glu	Lys	Leu	Glu	Glu	305	310	315
Lys	Leu	Gln	Ala	Gln	Ser	Asp	Tyr	Glu	Glu	Ile	Lys	Thr	Glu	Leu	Ser	325	330	335
Ile	Leu	Lys	Ala	Met	Lys	Leu	Ala	Ser	Ser	Thr	Cys	Ser	Leu	Pro	Gln	340	345	350
Gly	Met	Ala	Lys	Pro	Glu	Asp	Ser	Leu	Leu	Ile	Ala	Lys	Glu	Ala	Phe	355	360	365
Phe	Pro	Thr	Gln	Lys	Phe	Leu	Leu	Glu	Lys	Pro	Ser	Leu	Leu	Ala	Ser	370	375	380
Pro	Glu	Glu	Asp	Pro	Ser	Glu	Asp	Asp	Ser	Ile	Lys	Asp	Ser	Leu	Gly	385	390	395
Thr	Glu	Gln	Ser	Tyr	Pro	Ser	Pro	Gln	Gln	Leu	Pro	Pro	Pro	Pro	Gly	405	410	415
Pro	Glu	Asp	Pro	Leu	Ser	Pro	Ser	Pro	Gly	Gln	Pro	Leu	Leu	Gly	Pro	420	425	430
Ser	Leu	Gly	Pro	Asp	Gly	Thr	Arg	Thr	Phe	Ser	Leu	Ser	Pro	Phe	Pro	435	440	445
Ser	Leu	Ala	Ser	Gly	Glu	Arg	Leu	Met	Met	Pro	Pro	Ala	Ala	Phe	Lys	450	455	460
Gly	Glu	Ala	Gly	Gly	Leu	Leu	Val	Phe	Pro	Pro	Ala	Phe	Tyr	Gly	Ala	465	470	475
Lys	Pro	Pro	Thr	Ala	Pro	Ala	Thr	Pro	Ala	Pro	Gly	Pro	Glu	Pro	Leu	485	490	495
Gly	Gly	Pro	Glu	Pro	Ala	Asp	Gly	Gly	Gly	Gly	Gly	Ala	Ala	Gly	Pro	500	505	510
Gly	Ala	Glu	Glu	Gln	Leu	Asp	Thr	Ala	Glu	Ile	Ala	Phe	Gln	Val		515	520	525
Lys	Glu	Gln	Leu	Leu	Lys	His	Asn	Ile	Gly	Gln	Arg	Val	Phe	Gly	His	530	535	540
Tyr	Val	Leu	Gly	Leu	Ser	Gln	Gly	Ser	Val	Ser	Glu	Ile	Leu	Ala	Arg	545	550	555
Pro	Lys	Pro	Trp	Arg	Lys	Leu	Thr	Val	Lys	Gly	Lys	Glu	Pro	Phe	Ile	565	570	575
Lys	Met	Lys	Gln	Phe	Leu	Ser	Asp	Glu	Gln	Asn	Val	Leu	Ala	Leu	Arg	580	585	590
Thr	Ile	Gln	Val	Arg	Gln	Arg	Gly	Ser	Ile	Thr	Pro	Arg	Ile	Arg	Thr	595	600	605

Pro	Glu	Thr	Gly	Ser	Asp	Asp	Ala	Ile	Lys	Ser	Ile	Leu	Glu	Gln	Ala	610	615	620
Lys	Lys	Glu	Ile	Glu	Ser	Gln	Lys	Gly	Gly	Glu	Pro	Lys	Thr	Ser	Val	625	630	635
Ala	Pro	Leu	Ser	Ile	Ala	Asn	Gly	Thr	Thr	Pro	Ala	Ser	Thr	Ser	Glu	645	650	655
Asp	Ala	Ile	Lys	Ser	Ile	Leu	Glu	Gln	Ala	Arg	Arg	Glu	Met	Gln	Ala	660	665	670
Gln	Gln	Gln	Ala	Leu	Leu	Glu	Met	Glu	Val	Ala	Pro	Arg	Gly	Arg	Ser	675	680	685
Val	Pro	Pro	Ser	Pro	Pro	Glu	Arg	Pro	Ser	Leu	Ala	Thr	Ala	Ser	Gln	690	695	700
Asn	Gly	Ala	Pro	Ala	Leu	Val	Lys	Gln	Glu	Glu	Gly	Ser	Gly	Gly	Pro	705	710	715
Ala	Gln	Ala	Pro	Leu	Pro	Val	Leu	Ser	Pro	Ala	Ala	Phe	Val	Gln	Ser	725	730	735
Ile	Ile	Arg	Lys	Val	Lys	Ser	Glu	Ile	Gly	Asp	Ala	Gly	Tyr	Phe	Asp	740	745	750
His	His	Trp	Ala	Ser	Asp	Arg	Gly	Leu	Leu	Ser	Arg	Pro	Tyr	Ala	Ser	755	760	765
Val	Ser	Pro	Ser	Leu	Ser	Ser	Ser	Ser	Ser	Ser	Gly	Tyr	Ser	Gly	Gln	770	775	780
Pro	Asn	Gly	Arg	Ala	Trp	Pro	Arg	Gly	Asp	Glu	Ala	Pro	Val	Pro	Pro	785	790	795
Glu	Asp	Glu	Ala	Ala	Ala	Gly	Ala	Glu	Asp	Glu	Pro	Pro	Arg	Thr	Gly	805	810	815
Glu	Leu	Lys	Ala	Glu	Gly	Ala	Thr	Ala	Glu	Ala	Gly	Ala	Arg	Leu	Pro	820	825	830
Tyr	Tyr	Pro	Ala	Tyr	Val	Pro	Arg	Thr	Leu	Lys	Pro	Thr	Val	Pro	Pro	835	840	845
Leu	Thr	Pro	Glu	Gln	Tyr	Glu	Leu	Tyr	Met	Tyr	Arg	Glu	Val	Asp	Thr	850	855	860
Leu	Glu	Leu	Thr	Arg	Gln	Val	Lys	Glu	Lys	Leu	Ala	Lys	Asn	Gly	Ile	865	870	875
Cys	Gln	Arg	Ile	Phe	Gly	Glu	Lys	Val	Leu	Gly	Leu	Ser	Gln	Gly	Ser	885	890	895
Val	Ser	Asp	Met	Leu	Ser	Arg	Pro	Lys	Pro	Trp	Ser	Lys	Leu	Thr	Gln	900	905	910
Lys	Gly	Arg	Glu	Pro	Phe	Ile	Arg	Met	Gln	Leu	Trp	Leu	Ser	Asp	Gln	915	920	925
Leu	Gly	Gln	Ala	Val	Gly	Gln	Gln	Pro	Gly	Ala	Ser	Gln	Ala	Ser	Pro	930	935	940
Thr	Glu	Pro	Arg	Ser	Ser	Pro	Ser	Pro	Pro	Pro	Ser	Pro	Thr	Glu	Pro	945	950	955
Glu	Lys	Ser	Ser	Gln	Glu	Pro	Leu	Ser	Leu	Ser	Leu	Glu	Ser	Ser	Lys	965	970	975
Glu	Asn	Gln	Gln	Pro	Glu	Gly	Arg	Ser	Ser	Ser	Ser	Leu	Ser	Gly	Lys	980	985	990
Met	Tyr	Ser	Gly	Ser	Gln	Ala	Pro	Gly	Gly	Ile	Gln	Glu	Ile	Val	Ala	995	1000	1005
Met	Ser	Pro	Glu	Leu	Asp	Thr	Tyr	Ser	Ile	Thr	Lys	Arg	Val	Lys	Glu	1010	1015	1020
Val	Leu	Thr	Asp	Asn	Asn	Leu	Gly	Gln	Arg	Leu	Phe	Gly	Glu	Ser	Ile	1025	1030	1035
Leu	Gly	Leu	Thr	Gln	Gly	Ser	Val	Ser	Asp	Leu	Leu	Ser	Arg	Pro	Lys	1045	1050	1055
Pro	Trp	His	Lys	Leu	Ser	Leu	Lys	Gly	Arg	Glu	Pro	Phe	Val	Arg	Met	1060	1065	1070
Gln	Leu	Trp	Leu	Asn	Asp	Pro	His	Asn	Val	Glu	Lys	Leu	Arg	Asp	Met	1075	1080	1085
Lys	Lys	Leu	Glu	Lys	Lys	Ala	Tyr	Leu	Lys	Arg	Arg	Tyr	Gly	Leu	Ile	1090	1095	1100
Ser	Thr	Gly	Ser	Asp	Ser	Glu	Ser	Pro	Ala	Thr	Arg	Ser	Glu	Cys	Pro	1105	1110	1115
																		1120

Ser Pro Cys Leu Gln Pro Gln Asp Leu Ser Leu Leu Gln Ile Lys Lys  
 1125 1130 1135  
 Pro Arg Val Val Leu Ala Pro Glu Glu Lys Glu Ala Leu Arg Lys Ala  
 1140 1145 1150  
 Tyr Gln Leu Glu Pro Tyr Pro Ser Gln Gln Thr Ile Glu Leu Leu Ser  
 1155 1160 1165  
 Phe Gln Leu Asn Leu Lys Thr Asn Thr Val Ile Asn Trp Phe His Asn  
 1170 1175 1180  
 Tyr Arg Ser Arg Met Arg Arg Glu Met Leu Val Glu Gly Thr Gln Asp  
 1185 1190 1195 1200  
 Glu Pro Asp Leu Asp Pro Ser Gly Gly Pro Gly Ile Leu Pro Pro Gly  
 1205 1210 1215  
 His Ser His Pro Asp Pro Thr Pro Gln Ser Pro Asp Ser Glu Thr Glu  
 1220 1225 1230  
 Asp Gln Lys Pro Thr Val Lys Glu Leu Glu Leu Gln Glu Gly Pro Glu  
 1235 1240 1245  
 Glu Asn Ser Thr Pro Leu Thr Thr Gln Asp Lys Ala Gln Val Arg Ile  
 1250 1255 1260  
 Lys Gln Glu Gln Met Glu Glu Asp Ala Glu Glu Glu Ala Gly Ser Gln  
 1265 1270 1275 1280  
 Pro Gln Asp Ser Gly Glu Leu Asp Lys Gly Gln Gly Pro Pro Lys Glu  
 1285 1290 1295  
 Glu His Pro Asp Pro Pro Gly Asn Asp Gly Leu Pro Lys Val Ala Pro  
 1300 1305 1310  
 Gly Pro Leu Leu Pro Gly Gly Ser Thr Pro Asp Cys Pro Ser Leu His  
 1315 1320 1325  
 Pro Gln Gln Glu Ser Glu Ala Gly Glu Arg Leu His Pro Asp Pro Leu  
 1330 1335 1340  
 Ser Phe Lys Ser Ala Ser Glu Ser Ser Arg Cys Ser Leu Glu Val Ser  
 1345 1350 1355 1360  
 Leu Asn Ser Pro Ser Ala Ala Ser Ser Pro Gly Leu Met Met Ser Val  
 1365 1370 1375  
 Ser Pro Val Pro Ser Ser Ser Ala Pro Ile Ser Pro Ser Pro Pro Gly  
 1380 1385 1390  
 Ala Pro Pro Ala Lys Val Pro Ser Ala Ser Pro Thr Ala Asp Met Ala  
 1395 1400 1405  
 Gly Ala Leu His Pro Ser Ala Lys Val Asn Pro Asn Leu Gln Arg Arg  
 1410 1415 1420  
 His Glu Lys Met Ala Asn Leu Asn Asn Ile Ile Tyr Arg Leu Glu Arg  
 1425 1430 1435 1440  
 Ala Ala Asn Arg Glu Glu Ala Leu Glu Trp Glu Phe  
 1445 1450 1452

&lt;210&gt; 1441

&lt;211&gt; 354

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1441

Met Ala Ala Ala Thr Leu Arg Thr Pro Thr Gln Gly Thr Val Thr Phe  
 1 5 10 15  
 Glu Asp Val Ala Val His Phe Ser Trp Glu Glu Trp Gly Leu Leu Asp  
 20 25 30  
 Glu Ala Gln Arg Cys Leu Tyr Arg Asp Val Met Leu Glu Asn Leu Ala  
 35 40 45  
 Leu Leu Thr Ser Leu Asp Val His His Gln Lys Gln His Leu Gly Glu  
 50 55 60  
 Lys His Phe Ile Ser Asn Val Gly Arg Ala Leu Phe Val Lys Thr Cys  
 65 70 75 80  
 Thr Phe His Val Ser Gly Glu Pro Ser Thr Cys Arg Glu Phe Gly Lys  
 85 90 95

Asp Phe Leu Ala Lys Leu Gly Phe Leu His Gln Gln Ala Ala His Thr  
                   100                  105                  110  
 Gly Glu Gln Ser Asn Ser Lys Ser Asp Gly Gly Ala Ile Ser His Arg  
                   115                  120                  125  
 Gly Lys Thr His Tyr Asn Cys Gly Glu His Thr Lys Ala Phe Ser Gly  
                   130                  135                  140  
 Lys His Thr Leu Val Gln Gln Gln Arg Thr Leu Thr Thr Glu Arg Cys  
                   145                  150                  155                  160  
 Tyr Ile Cys Ser Glu Cys Gly Lys Ser Phe Ser Lys Ser Tyr Ser Leu  
                   165                  170                  175  
 Asn Asp His Trp Arg Leu His Thr Gly Glu Lys Pro Tyr Glu Cys Arg  
                   180                  185                  190  
 Glu Cys Gly Lys Ser Phe Arg Gln Ser Ser Ser Leu Ile Gln His Arg  
                   195                  200                  205  
 Arg Gly His Thr Ala Val Arg Pro His Glu Gly Asp Glu Cys Gly Lys  
                   210                  215                  220  
 Leu Phe Ser Asn Pro Ser Asn Leu Ile Lys His Arg Arg Val His Thr  
                   225                  230                  235                  240  
 Gly Glu Arg Pro Tyr Glu Cys Ser Glu Cys Gly Lys Ser Phe Asn Gln  
                   245                  250                  255  
 Arg Ser Ala Leu Leu Gln His Arg Gly Gly His Thr Gly Glu Arg Pro  
                   260                  265                  270  
 Tyr Glu Cys Ser Glu Cys Gly Lys Phe Phe Pro Tyr Ser Ser Ser Leu  
                   275                  280                  285  
 Arg Lys His Gln Arg Val His Thr Gly Ser Arg Pro Tyr Glu Cys Ser  
                   290                  295                  300  
 Glu Cys Gly Lys Ser Phe Thr Gln Asn Ser Gly Leu Ile Lys His Arg  
                   305                  310                  315                  320  
 Arg Val His Thr Gly Glu Lys Pro Tyr Glu Cys Thr Glu Cys Gly Lys  
                   325                  330                  335  
 Ser Phe Ser His Asn Ser Ser Leu Ile Lys His Gln Arg Ile His Ser  
                   340                  345                  350  
 Arg \*  
 353

<210> 1442  
 <211> 268  
 <212> PRT  
 <213> Homo sapiens

<400> 1442  
 Met Lys Gly Ile Ser Gly Gly Val Arg Val Ala Ala Leu Ala Ala Arg  
           1                  5                  10                  15  
 Ala Glu Arg Glu Glu Leu Pro Val Pro Ala Met Glu Pro Gln Pro Thr  
                   20                  25                  30  
 Ala Trp Gly Ser Pro His Pro Glu Ala Val Leu Gln Leu Glu Val Ala  
                   35                  40                  45  
 Pro Glu Ser Ser Gly Pro Cys Thr Asp Thr Ala Lys Asp Gln Gln Ser  
                   50                  55                  60  
 Asp Lys Leu Pro Asp Leu Met Pro Pro Ala Val Ala Thr Gly Leu Ser  
                   65                  70                  75                  80  
 Pro Gly Ala Glu Ser Ile Ala Gly Asp Arg Arg Gly Arg Glu Glu Val  
                   85                  90                  95  
 Ala Ser Met Ala Pro Ala Ser Ser Ser His Ala Ala Pro Ser Pro Gly  
                   100                  105                  110  
 His Gly Ala Ser Leu Gly Val Arg Asp Gln Gly Val Gln Ser Glu Leu  
                   115                  120                  125  
 Leu Tyr Leu Thr Lys Glu Arg Pro Leu Leu Phe Thr Arg Ala Thr Ala  
                   130                  135                  140  
 Leu Leu Pro Gln Asp Leu Phe Ile Leu Pro Val Leu Gly Leu Ser Ile  
                   145                  150                  155                  160

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<210> 1443
<211> 236
<212> PRT
<213> Homo sapiens
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<210> 1444
<211> 462
<212> PRT
<213> Homo sapiens
```

3227

```

Met Cys Val Arg Ser Cys Phe Gln Ser Pro Arg Leu Gln Trp Val Trp
 1      5      10      15
Arg Thr Ala Phe Leu Lys His Thr Gln Arg Arg His Gln Gly Ser His
 20      25      30
Arg Trp Thr His Leu Gly Gly Ser Thr Tyr Arg Ala Val Ile Phe Asp
 35      40      45
Met Gly Gly Val Leu Ile Pro Ser Pro Gly Arg Val Ala Ala Glu Trp
 50      55      60
Glu Val Gln Asn Arg Ile Pro Ser Gly Thr Ile Leu Lys Ala Leu Met
 65      70      75      80
Glu Gly Gly Glu Asn Gly Pro Trp Met Arg Phe Met Arg Ala Glu Ile
 85      90      95
Thr Ala Glu Gly Phe Leu Arg Glu Phe Gly Arg Leu Cys Ser Glu Met
 100      105      110
Leu Lys Thr Ser Val Pro Val Asp Ser Phe Phe Ser Leu Leu Thr Ser
 115      120      125
Glu Arg Val Ala Lys Gln Phe Pro Val Met Thr Glu Ala Ile Thr Gln
 130      135      140
Ile Arg Ala Lys Gly Leu Gln Thr Ala Val Leu Ser Asn Asn Phe Tyr
 145      150      155      160
Leu Pro Asn Gln Lys Ser Phe Leu Pro Leu Asp Arg Lys Gln Phe Asp
 165      170      175
Val Ile Val Glu Ser Cys Met Glu Gly Ile Cys Lys Pro Asp Pro Arg
 180      185      190
Ile Tyr Lys Leu Cys Leu Glu Gln Leu Gly Leu Gln Pro Ser Glu Ser
 195      200      205
Ile Phe Leu Asp Asp Leu Gly Thr Asn Leu Lys Glu Ala Ala Arg Leu
 210      215      220
Gly Ile His Thr Ile Lys Val Asn Asp Pro Glu Thr Ala Val Lys Glu
 225      230      235      240
Leu Glu Ala Leu Leu Gly Phe Thr Leu Arg Val Gly Val Pro Asn Thr
 245      250      255
Arg Pro Val Lys Lys Thr Met Glu Ile Pro Lys Asp Ser Leu Gln Lys
 260      265      270
Tyr Leu Lys Asp Leu Leu Gly Ile Gln Thr Thr Gly Pro Leu Glu Leu
 275      280      285
Leu Gln Phe Asp His Gly Gln Ser Asn Pro Thr Tyr Tyr Ile Arg Leu
 290      295      300
Ala Asn Arg Asp Leu Val Leu Arg Lys Lys Pro Pro Gly Thr Leu Leu
 305      310      315      320
Pro Ser Ala His Ala Ile Glu Arg Glu Phe Arg Ile Met Lys Ala Leu
 325      330      335
Ala Asn Ala Gly Val Pro Val Pro Asn Val Leu Asp Leu Cys Glu Asp
 340      345      350
Ser Ser Val Ile Gly Thr Pro Phe Tyr Val Met Glu Tyr Cys Pro Gly
 355      360      365
Leu Ile Tyr Lys Asp Pro Ser Leu Pro Gly Leu Glu Pro Ser His Arg
 370      375      380
Arg Ala Ile Tyr Thr Ala Met Asn Thr Val Leu Cys Lys Ile His Ser
 385      390      395      400
Val Asp Leu Gln Ala Val Gly Leu Glu Asp Tyr Gly Lys Gln Gly Ser
 405      410      415
Thr Thr Trp Cys Phe Ile Gln Lys Ser Gln Arg Cys Leu Leu Ser Leu
 420      425      430
Thr Gly Asn Phe Leu Pro Trp Ala Thr Pro Leu Leu Met Trp Pro Thr
 435      440      445
Ala Ala Trp Leu Ile Thr Cys His Pro Val Phe Pro Cys *
 450      455      460 461

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&lt;210&gt; 1445

&lt;211&gt; 206

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1445

```

Met Glu Met Glu Gln Glu Lys Met Thr Met Asn Lys Glu Leu Ser Pro
 1          5          10          15
Asp Ala Ala Ala Tyr Cys Cys Ser Ala Cys His Gly Asp Glu Thr Trp
          20          25          30
Ser Tyr Asn His Pro Ile Arg Gly Arg Ala Lys Ser Arg Ser Leu Ser
          35          40          45
Ala Ser Pro Ala Leu Gly Ser Thr Lys Glu Phe Arg Arg Thr Arg Ser
          50          55          60
Leu His Gly Pro Cys Pro Val Thr Thr Phe Gly Pro Lys Ala Cys Val
65          70          75          80
Leu Gln Asn Pro Gln Thr Ile Met His Ile Gln Asp Pro Ala Ser Gln
          85          90          95
Arg Leu Thr Trp Asn Lys Ser Pro Lys Ser Val Leu Val Ile Lys Lys
          100          105          110
Met Arg Asp Ala Ser Leu Leu Gln Pro Phe Lys Glu Leu Cys Thr His
          115          120          125
Leu Met Glu Glu Asn Met Ile Val Tyr Val Glu Lys Lys Val Leu Glu
130          135          140
Asp Pro Ala Ile Ala Ser Asp Glu Ser Phe Gly Ala Val Lys Lys Lys
145          150          155          160
Phe Cys Thr Phe Arg Glu Asp Tyr Asp Asp Ile Ser Asn Gln Ile Asp
          165          170          175
Phe Ile Ile Cys Leu Gly Gly Asp Gly Thr Leu Leu Tyr Ala Ser Ser
          180          185          190
Leu Phe Gln Gly Thr Gln Leu Leu Phe Ser Gly Val Gly *
          195          200          205

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&lt;210&gt; 1446

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1446

```

Met Thr Thr Glu Gly His His Trp Leu Thr Asn Ala Arg Leu Thr Lys
 1          5          10          15
Tyr Gln Ser Leu Pro Cys Glu Asn Pro His Ile Thr Ile Glu Val Cys
          20          25          30
Asn Thr Leu Asn Pro Thr Thr Leu Leu Pro Val Ser Glu Ser Pro Gly
          35          40          45
Glu His Asn Cys Val Glu Val Leu Asp Ser Val Tyr Ser Ser Arg Pro
          50          55          60
Asp Leu Arg Asp Gln Pro Trp Ala Ser Ser Val Asp Trp Glu Leu Tyr
65          70          75          80
Met Asp Gly Ser Ser Phe Ile Asn Ser Gln Gly Glu Arg Cys Ala Gly
          85          90          95
Tyr Ala Val Val Thr Leu Asp Ala Val Ile Lys Ala Lys Leu Trp Leu
          100          105          110
Gln Gly Thr Ser Ala Gln Lys Ala Glu Leu Ile Ala Leu Thr Arg Ala
          115          120          125
Val Glu Leu Ser Glu Gly Gln Glu Ser Leu Glu Glu Leu Leu Gly Arg
130          135          140
Tyr Phe Tyr Val Ser His Leu Pro Ala Phe Ala Lys Ala Val Ala Gln
145          150          155          160
Leu Cys Ile Thr Cys Arg Gln His Asn Ala Arg Gln Ser Pro Thr Val
          165          170          175
Ser Pro His Ile Gln Ala Tyr Gly Ala Ala Pro Phe Glu Asp Leu Gln
          180          185          190

```



Val Asp Phe Thr Glu Met Pro Lys Cys Gly Gly Asn Lys Tyr Leu Leu  
 195 200 205  
 Val Leu Thr Cys Thr Tyr Ser Gly Trp Val Glu Ala Tyr Pro Thr Arg  
 210 215 220  
 Thr Glu Lys Ala Tyr Glu Val Thr Arg Val Leu Leu Arg Asp Leu Ile  
 225 230 235 240  
 Pro Arg Phe Gly Leu Pro Leu Arg Ile Gly Ser His Asn Gly Pro Val  
 245 250 255  
 Phe Val Ala Asp Leu Asp Cys Val Glu Ile Asn Val Asp Thr Gly Val  
 260 265 270  
 Ile Trp Ala Thr Trp Ile Lys Asn Glu Lys Asp Pro Val Gln Leu Gln  
 275 280 285  
 Lys Gly Lys Ser Gly Pro Ser Cys Thr Lys Gly Gln Cys Asn Pro Leu  
 290 295 300  
 Glu Leu Val Ile Thr Asn Pro Leu Asp Pro Arg Trp Lys Lys Gly Glu  
 305 310 315 320  
 Arg Val Thr Leu Gly Ile Asn Gly Ala Gly Leu Asn Pro Arg Val Asn  
 325 330 335  
 Ile Leu Val Arg Gly Glu Val Tyr Lys Cys Ser Leu Glu Pro Val Phe  
 340 345 350  
 Gln Thr Phe Tyr Asp Glu Leu Asn Val Pro Ile Thr Glu Phe Pro Gly  
 355 360 365  
 Lys Thr Arg Asn Leu Phe Leu Gln Leu Ala Glu His Val Ala Gln Ser  
 370 375 380  
 Leu Thr Val Thr Ser Cys Tyr Val Cys Gly Gly Thr Val Ile Ala Asp  
 385 390 395 400  
 Gln Trp Pro Trp Glu Ala Arg Glu Leu Val Pro Thr Asp Pro Val Pro  
 405 410 415  
 Asp Glu Phe Pro Ala Gln Lys Asn His Pro Asp Asn Phe Trp Val Leu  
 420 425 430  
 Lys Ala Ser Ile Ile Arg Gln Tyr Tyr Ile Ala Arg Val Glu Lys Asp  
 435 440 445  
 Phe Thr Leu Pro Val Gly Arg Leu His Gly Gly Val Gln Thr Thr Gln  
 450 455 460  
 Arg Lys Ile His Ser Val Asn Phe Gln Ser Cys Arg Pro Phe Arg Pro  
 465 470 475 480  
 Thr Gln Asn Pro Thr Gly Thr Gly Gln Pro Pro Leu Gly Tyr Thr Gly  
 485 490 495  
 Tyr Val Asp Ile Glu Pro Thr Leu Ser Cys Leu Thr Ser Ser Cys Val  
 500 505 510  
 Ile Gly Thr Ile Lys Pro Ser Phe Phe Leu Leu Ser Ile Lys Thr Gly  
 515 520 525  
 Glu Leu Leu Gly Phe Pro Val Tyr Ala Ser Arg Glu Lys His Ser Tyr  
 530 535 540  
 Lys Lys Leu Lys Gln \*  
 545 549

<210> 1447  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

<400> 1447  
 Met Ser Trp Arg Gly Arg Ser Thr Tyr Arg Pro Arg Pro Arg Arg Ser  
 1 5 10 15  
 Leu Gln Pro Pro Glu Leu Ile Gly Ala Met Leu Glu Pro Thr Asp Glu  
 20 25 30  
 Glu Pro Lys Glu Glu Lys Pro Pro Thr Lys Ser Arg Asn Pro Thr Pro  
 35 40 45  
 Asp Gln Lys Arg Glu Asp Asp Gln Gly Ala Ala Glu Ile Gln Val Pro  
 50 55 60

```

Asp Leu Glu Ala Asp Leu Gln Glu Leu Cys Gln Thr Lys Thr Gly Asp
 65              70              75              80
Gly Cys Glu Gly Gly Thr Asp Val Lys Gly Lys Ile Leu Pro Lys Ala
              85              90              95
Glu His Phe Lys Met Pro Glu Ala Gly Glu Gly Lys Ser Gln Val *
              100              105              110 111

```

```

<210> 1448
<211> 59
<212> PRT
<213> Homo sapiens

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```

<400> 1448
Met Pro Ala Pro Gly Gly Thr Gln Asp Thr Ser Ala Leu Ser Gly Glu
 1              5              10              15
Asp Glu Glu Ser Leu Ser Thr Gln Thr Pro Thr Pro Ser Arg Thr Ser
              20              25              30
Trp Gly Pro His Arg Ser Cys Tyr Pro Ser Cys Pro Ala Arg Glu Ser
              35              40              45
Asn Arg Arg Leu Trp Pro Arg Lys Ala Ser *
              50              55              58

```

```

<210> 1449
<211> 185
<212> PRT
<213> Homo sapiens

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```

<400> 1449
Met Tyr Thr Tyr Ile Phe Cys Pro Asn Cys Val Ser Tyr Lys Met Lys
 1              5              10              15
Thr Asp His Phe Ser Leu Arg Tyr Leu His Ser Ser Cys Ala Glu Asp
              20              25              30
Asn Lys Ser Ser Val Asp Ser Ser Gly Gln Ala Ala His Pro Ser Lys
              35              40              45
Gly Lys Phe Phe Pro His Gly Thr His Trp Gly Thr Gln Cys Arg Gly
              50              55              60
His Ile Ser Val Leu Gly Trp Gln Cys Ser Cys Pro Ser Thr Gly Cys
              65              70              75              80
Arg Val Gly Leu Gly Leu Ala Met Cys Gln Thr His Ala Tyr Ile His
              85              90              95
Thr His Thr His Thr His Thr His Thr Pro Pro Asp Tyr Gly Ala His
              100              105              110
His Thr Asp Pro Leu Gln Arg Trp Gly Leu Gly Pro Arg Thr Ile Arg
              115              120              125
Ser Arg Ala Pro Pro Pro Ala Val Ser Arg Pro Lys Pro Ser Arg Ala
              130              135              140
Ser Glu Pro Trp Gly Ile Thr Gln Lys Arg Trp Ala Pro Arg Leu Ala
              145              150              155              160
Pro Ser Thr Pro Gly Ala Gln Gly Ala Trp Glu Met Arg Gln Gly Arg
              165              170              175
Ser Phe Thr Pro Asp Gln Ala Asp *
              180              184

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<210> 1450
<211> 1070
<212> PRT

```

&lt;213&gt; Homo sapiens

&lt;400&gt; 1450

```

Met Pro Thr Gln Thr Asp Val Lys Leu Lys Phe Lys Pro Leu Ser Lys
 1          5          10          15
Lys Val Val Ser Ala Ala Leu Gln Phe Ser Leu Ser Cys Ile Phe Leu
 20          25          30
Arg Glu Gly Lys Ala Thr Asp Glu Asp Met Gln Ser Leu Ala Ser Leu
 35          40          45
Met Ser Met Lys Gln Ala Asp Ile Gly Asn Leu Asp Asp Phe Glu Glu
 50          55          60
Asp Asn Glu Asp Asp Asp Glu Asn Arg Val Asn Gln Glu Glu Lys Ala
 65          70          75          80
Ala Lys Ile Thr Glu Leu Ile Asn Lys Leu Asn Phe Leu Asp Glu Ala
 85          90          95
Glu Lys Asp Leu Ala Thr Val Asn Ser Asn Pro Phe Asp Asp Pro Asp
100          105          110
Ala Ala Glu Leu Asn Pro Phe Gly Asp Pro Asp Ser Glu Glu Pro Ile
115          120          125
Thr Glu Thr Ala Ser Pro Arg Lys Thr Glu Asp Ser Phe Tyr Asn Asn
130          135          140
Ser Tyr Asn Pro Phe Lys Glu Val Gln Thr Pro Gln Tyr Leu Asn Pro
145          150          155          160
Phe Asp Glu Pro Glu Ala Phe Val Thr Ile Lys Asp Ser Pro Pro Gln
165          170          175
Ser Thr Lys Arg Lys Asn Ile Arg Pro Val Asp Met Ser Lys Tyr Leu
180          185          190
Tyr Ala Asp Ser Ser Lys Thr Glu Glu Glu Glu Leu Asp Glu Ser Asn
195          200          205
Pro Phe Tyr Glu Pro Lys Ser Thr Pro Pro Pro Asn Asn Leu Val Asn
210          215          220
Pro Val Gln Glu Leu Glu Thr Glu Arg Arg Val Lys Arg Lys Ala Pro
225          230          235          240
Ala Pro Pro Val Leu Ser Pro Lys Thr Gly Val Leu Asn Glu Asn Thr
245          250          255
Val Ser Ala Gly Lys Asp Leu Ser Thr Ser Pro Lys Pro Ser Pro Ile
260          265          270
Pro Ser Pro Val Leu Gly Arg Lys Pro Asn Ala Ser Gln Ser Leu Leu
275          280          285
Val Trp Cys Lys Glu Val Thr Lys Asn Tyr Arg Gly Val Lys Ile Thr
290          295          300
Asn Phe Thr Thr Ser Trp Arg Asn Gly Leu Ser Phe Cys Ala Ile Leu
305          310          315          320
His His Phe Arg Pro Asp Leu Ile Asp Tyr Lys Ser Leu Asn Pro Gln
325          330          335
Asp Ile Lys Glu Asn Asn Lys Lys Ala Tyr Asp Gly Phe Ala Ser Ile
340          345          350
Gly Ile Ser Arg Leu Leu Glu Pro Ser Asp Met Val Leu Leu Ala Ile
355          360          365
Pro Asp Lys Leu Thr Val Met Thr Tyr Leu Tyr Gln Ile Arg Ala His
370          375          380
Phe Ser Gly Gln Glu Leu Asn Val Val Gln Ile Glu Glu Asn Ser Ser
385          390          395          400
Lys Ser Thr Tyr Lys Val Gly Asn Tyr Glu Thr Asp Thr Asn Ser Ser
405          410          415
Val Asp Gln Glu Lys Phe Tyr Ala Glu Leu Ser Asp Leu Lys Arg Glu
420          425          430
Pro Glu Leu Gln Gln Pro Ile Ser Gly Ala Val Asp Phe Leu Ser Gln
435          440          445
Asp Asp Ser Val Phe Val Asn Asp Ser Gly Val Gly Glu Ser Glu Ser
450          455          460
Glu His Gln Thr Pro Asp Asp His Leu Ser Pro Ser Thr Ala Ser Pro
465          470          475          480

```

Tyr	Cys	Arg	Arg	Thr	Lys	Ser	Asp	Thr	Glu	Pro	Gln	Lys	Ser	Gln	Gln
				485					490					495	
Ser	Ser	Gly	Arg	Thr	Ser	Gly	Ser	Asp	Asp	Pro	Gly	Ile	Cys	Ser	Asn
			500					505					510		
Thr	Asp	Ser	Thr	Gln	Ala	Gln	Val	Leu	Leu	Gly	Lys	Lys	Arg	Leu	Leu
			515				520					525			
Lys	Ala	Glu	Thr	Leu	Glu	Leu	Ser	Asp	Leu	Tyr	Val	Ser	Asp	Lys	Lys
			530			535					540				
Lys	Asp	Met	Ser	Pro	Pro	Phe	Ile	Cys	Glu	Glu	Thr	Asp	Glu	Gln	Lys
545					550					555					560
Leu	Gln	Thr	Leu	Asp	Ile	Gly	Ser	Asn	Leu	Glu	Lys	Glu	Lys	Leu	Glu
				565					570					575	
Asn	Ser	Arg	Ser	Leu	Glu	Cys	Arg	Ser	Asp	Pro	Glu	Ser	Pro	Ile	Lys
			580					585					590		
Lys	Thr	Ser	Leu	Ser	Pro	Thr	Ser	Lys	Leu	Gly	Tyr	Ser	Tyr	Ser	Arg
			595				600					605			
Asp	Leu	Asp	Leu	Ala	Lys	Lys	Lys	His	Ala	Ser	Leu	Arg	Gln	Thr	Glu
			610			615					620				
Ser	Asp	Pro	Asp	Ala	Asp	Arg	Thr	Thr	Leu	Asn	His	Ala	Asp	His	Ser
625					630					635					640
Ser	Lys	Ile	Val	Gln	His	Arg	Leu	Leu	Ser	Arg	Gln	Glu	Glu	Leu	Lys
				645					650					655	
Glu	Arg	Ala	Arg	Val	Leu	Leu	Glu	Gln	Ala	Arg	Arg	Asp	Ala	Ala	Leu
			660					665					670		
Lys	Ala	Gly	Asn	Lys	His	Asn	Thr	Asn	Thr	Ala	Thr	Pro	Phe	Cys	Asn
			675				680					685			
Arg	Gln	Leu	Ser	Asp	Gln	Gln	Asp	Glu	Glu	Arg	Arg	Arg	Gln	Leu	Arg
			690			695					700				
Glu	Arg	Ala	Arg	Gln	Leu	Ile	Ala	Glu	Ala	Arg	Ser	Gly	Val	Lys	Met
705					710					715					720
Ser	Glu	Leu	Pro	Ser	Tyr	Gly	Glu	Met	Ala	Ala	Glu	Lys	Leu	Lys	Glu
				725					730					735	
Arg	Ser	Lys	Ala	Ser	Gly	Asp	Glu	Asn	Asp	Asn	Ile	Glu	Ile	Asp	Thr
			740				745					750			
Asn	Glu	Glu	Ile	Pro	Glu	Gly	Phe	Val	Val	Gly	Gly	Gly	Asp	Glu	Leu
			755				760					765			
Thr	Asn	Leu	Glu	Asn	Asp	Leu	Asp	Thr	Pro	Glu	Gln	Asn	Ser	Lys	Leu
			770			775					780				
Val	Asp	Leu	Lys	Leu	Lys	Lys	Leu	Leu	Glu	Val	Gln	Pro	Gln	Val	Ala
785					790					795					800
Asn	Ser	Pro	Ser	Ser	Ala	Ala	Gln	Lys	Ala	Val	Thr	Glu	Ser	Ser	Glu
				805					810					815	
Gln	Asp	Met	Lys	Ser	Gly	Thr	Glu	Asp	Leu	Arg	Thr	Glu	Arg	Leu	Gln
			820				825					830			
Lys	Thr	Thr	Glu	Arg	Phe	Arg	Asn	Pro	Val	Val	Phe	Ser	Lys	Asp	Ser
			835				840					845			
Thr	Val	Arg	Lys	Thr	Gln	Leu	Gln	Ser	Phe	Ser	Gln	Tyr	Ile	Glu	Asn
			850			855					860				
Arg	Pro	Glu	Met	Lys	Arg	Gln	Arg	Ser	Ile	Gln	Glu	Asp	Thr	Lys	Lys
865					870					875					880
Gly	Asn	Glu	Glu	Lys	Ala	Ala	Ile	Thr	Glu	Thr	Gln	Arg	Lys	Pro	Ser
				885					890					895	
Glu	Asp	Glu	Val	Leu	Asn	Lys	Gly	Phe	Lys	Asp	Thr	Ser	Gln	Tyr	Val
			900					905					910		
Val	Gly	Glu	Leu	Ala	Ala	Leu	Glu	Asn	Glu	Gln	Lys	Gln	Ile	Asp	Thr
			915				920					925			
Arg	Ala	Ala	Leu	Val	Glu	Lys	Arg	Leu	Arg	Tyr	Leu	Met	Asp	Thr	Gly
			930			935					940				
Arg	Asn	Thr	Glu	Glu	Glu	Glu	Ala	Met	Met	Gln	Glu	Trp	Phe	Met	Leu
945					950					955					960
Val	Asn	Lys	Lys	Asn	Ala	Leu	Ile	Arg	Arg	Met	Asn	Gln	Leu	Ser	Leu
				965					970					975	
Leu	Glu	Lys	Glu	His	Asp	Leu	Glu	Arg	Arg	Tyr	Glu	Leu	Leu	Asn	Arg
				980				985					990		

Gly Ile Ser Arg Leu Leu Glu Pro Ser Asp Met Val Leu Leu Ala Ile  
 355 360 365  
 Pro Asp Lys Leu Thr Val Met Thr Tyr Leu Tyr Gln Ile Arg Ala His  
 370 375 380  
 Phe Ser Gly Gln Glu Leu Asn Val Val Gln Ile Glu Glu Asn Ser Ser  
 385 390 395 400  
 Lys Ser Thr Tyr Lys Val Gly Asn Tyr Glu Thr Asp Thr Asn Ser Ser  
 405 410 415  
 Val Asp Gln Glu Lys Phe Tyr Ala Glu Leu Ser Asp Leu Lys Arg Glu  
 420 425 430  
 Pro Glu Leu Gln Gln Pro Ile Ser Gly Ala Val Asp Phe Leu Ser Gln  
 435 440 445  
 Asp Asp Ser Val Phe Val Asn Asp Ser Gly Val Gly Glu Ser Glu Ser  
 450 455 460  
 Glu His Gln Thr Pro Asp Asp His Leu Ser Pro Ser Thr Ala Ser Pro  
 465 470 475 480  
 Tyr Cys Arg Arg Thr Lys Ser Asp Thr Glu Pro Gln Lys Ser Gln Gln  
 485 490 495  
 Ser Ser Gly Arg Thr Ser Gly Ser Asp Asp Pro Gly Ile Cys Ser Asn  
 500 505 510  
 Thr Asp Ser Thr Gln Ala Gln Val Leu Leu Gly Lys Lys Arg Leu Leu  
 515 520 525  
 Lys Ala Glu Thr Leu Glu Leu Ser Asp Leu Tyr Val Ser Asp Lys Lys  
 530 535 540  
 Lys Asp Met Ser Pro Pro Phe Ile Cys Glu Glu Thr Asp Glu Gln Lys  
 545 550 555 560  
 Leu Gln Thr Leu Asp Ile Gly Ser Asn Leu Glu Lys Glu Lys Leu Glu  
 565 570 575  
 Asn Ser Arg Ser Leu Glu Cys Arg Ser Asp Pro Glu Ser Pro Ile Lys  
 580 585 590  
 Lys Thr Ser Leu Ser Pro Thr Ser Lys Leu Gly Tyr Ser Tyr Ser Arg  
 595 600 605  
 Asp Leu Asp Leu Ala Lys Lys Lys His Ala Ser Leu Arg Gln Thr Glu  
 610 615 620  
 Ser Asp Pro Asp Ala Asp Arg Thr Thr Leu Asn His Ala Asp His Ser  
 625 630 635 640  
 Ser Lys Ile Val Gln His Arg Leu Leu Ser Arg Gln Glu Glu Leu Lys  
 645 650 655  
 Glu Arg Ala Arg Val Leu Leu Glu Gln Ala Arg Arg Asp Ala Ala Leu  
 660 665 670  
 Lys Ala Gly Asn Lys His Asn Thr Asn Thr Ala Thr Pro Phe Cys Asn  
 675 680 685  
 Arg Gln Leu Ser Asp Gln Gln Asp Glu Glu Arg Arg Arg Gln Leu Arg  
 690 695 700  
 Glu Arg Ala Arg Gln Leu Ile Ala Glu Ala Arg Ser Gly Val Lys Met  
 705 710 715 720  
 Ser Glu Leu Pro Ser Tyr Gly Glu Met Ala Ala Glu Lys Leu Lys Glu  
 725 730 735  
 Arg Ser Lys Ala Ser Gly Glu Gln Asn Ser Lys Leu Val Asp Leu Lys  
 740 745 750  
 Leu Lys Lys Leu Leu Glu Val Gln Pro Gln Val Ala Asn Ser Pro Ser  
 755 760 765  
 Ser Ala Ala Gln Lys Ala Val Thr Glu Ser Ser Glu Gln Asp Met Lys  
 770 775 780  
 Ser Gly Thr Glu Asp Leu Arg Thr Glu Arg Leu Gln Lys Thr Thr Glu  
 785 790 795 800  
 Arg Phe Arg Asn Pro Val Val Phe Ser Lys Asp Ser Thr Val Arg Lys  
 805 810 815  
 Thr Gln Leu Gln Ser Phe Ser Gln Tyr Ile Glu Asn Arg Pro Glu Met  
 820 825 830  
 Lys Arg Gln Arg Ser Ile Gln Glu Asp Thr Lys Lys Gly Asn Glu Glu  
 835 840 845  
 Lys Ala Ala Ile Thr Glu Thr Gln Arg Lys Pro Ser Glu Asp Glu Val  
 850 855 860

Glu Leu Arg Ala Met Leu Ala Ile Glu Asp Trp Gln Lys Thr Glu Ala  
           995                                  1000                                  1005  
 Gln Lys Arg Arg Glu Gln Leu Leu Leu Asp Glu Leu Val Ala Leu Val  
           1010                                  1015                                  1020  
 Asn Lys Arg Asp Ala Leu Val Arg Asp Leu Asp Ala Gln Glu Lys Gln  
 1025                                  1030                                  1035                                  1040  
 Ala Glu Glu Glu Asp Glu His Leu Glu Arg Thr Leu Glu Gln Asn Lys  
                                   1045                                  1050                                  1055  
 Gly Lys Met Ala Lys Lys Glu Glu Lys Cys Val Leu Gln \*  
                                   1060                                  1065                                  1069

<210> 1451  
 <211> 1034  
 <212> PRT  
 <213> Homo sapiens

<400> 1451  
 Met Pro Thr Gln Thr Asp Val Lys Leu Lys Phe Lys Pro Leu Ser Lys  
   1                                  5                                  10                                  15  
 Lys Val Val Ser Ala Ala Leu Gln Phe Ser Leu Ser Cys Ile Phe Leu  
                                   20                                  25                                  30  
 Arg Glu Gly Lys Ala Thr Asp Glu Asp Met Gln Ser Leu Ala Ser Leu  
                                   35                                  40                                  45  
 Met Ser Met Lys Gln Ala Asp Ile Gly Asn Leu Asp Asp Phe Glu Glu  
   50                                  55                                  60  
 Asp Asn Glu Asp Asp Asp Glu Asn Arg Val Asn Gln Glu Glu Lys Ala  
   65                                  70                                  75                                  80  
 Ala Lys Ile Thr Glu Leu Ile Asn Lys Leu Asn Phe Leu Asp Glu Ala  
                                   85                                  90                                  95  
 Glu Lys Asp Leu Ala Thr Val Asn Ser Asn Pro Phe Asp Asp Pro Asp  
                                   100                                  105                                  110  
 Ala Ala Glu Leu Asn Pro Phe Gly Asp Pro Asp Ser Glu Glu Pro Ile  
                                   115                                  120                                  125  
 Thr Glu Thr Ala Ser Pro Arg Lys Thr Glu Asp Ser Phe Tyr Asn Asn  
   130                                  135                                  140  
 Ser Tyr Asn Pro Phe Lys Glu Val Gln Thr Pro Gln Tyr Leu Asn Pro  
   145                                  150                                  155                                  160  
 Phe Asp Glu Pro Glu Ala Phe Val Thr Ile Lys Asp Ser Pro Pro Gln  
                                   165                                  170                                  175  
 Ser Thr Lys Arg Lys Asn Ile Arg Pro Val Asp Met Ser Lys Tyr Leu  
                                   180                                  185                                  190  
 Tyr Ala Asp Ser Ser Lys Thr Glu Glu Glu Glu Leu Asp Glu Ser Asn  
                                   195                                  200                                  205  
 Pro Phe Tyr Glu Pro Lys Ser Thr Pro Pro Pro Asn Asn Leu Val Asn  
   210                                  215                                  220  
 Pro Val Gln Glu Leu Glu Thr Glu Arg Arg Val Lys Arg Lys Ala Pro  
   225                                  230                                  235                                  240  
 Ala Pro Pro Val Leu Ser Pro Lys Thr Gly Val Leu Asn Glu Asn Thr  
                                   245                                  250                                  255  
 Val Ser Ala Gly Lys Asp Leu Ser Thr Ser Pro Lys Pro Ser Pro Ile  
                                   260                                  265                                  270  
 Pro Ser Pro Val Leu Gly Arg Lys Pro Asn Ala Ser Gln Ser Leu Leu  
                                   275                                  280                                  285  
 Val Trp Cys Lys Glu Val Thr Lys Asn Tyr Arg Gly Val Lys Ile Thr  
   290                                  295                                  300  
 Asn Phe Thr Thr Ser Trp Arg Asn Gly Leu Ser Phe Cys Ala Ile Leu  
   305                                  310                                  315                                  320  
 His His Phe Arg Pro Asp Leu Ile Asp Tyr Lys Ser Leu Asn Pro Gln  
                                   325                                  330                                  335  
 Asp Ile Lys Glu Asn Asn Lys Lys Ala Tyr Asp Gly Phe Ala Ser Ile  
                                   340                                  345                                  350

Leu Asn Lys Gly Phe Lys Asp Thr Ser Gln Tyr Val Val Gly Glu Leu  
 865 870 875 880  
 Ala Ala Leu Glu Asn Glu Gln Lys Gln Ile Asp Thr Arg Ala Ala Leu  
 885 890 895  
 Val Glu Lys Arg Leu Arg Tyr Leu Met Asp Thr Gly Arg Asn Thr Glu  
 900 905 910  
 Glu Glu Glu Ala Met Met Gln Glu Trp Phe Met Leu Val Asn Lys Lys  
 915 920 925  
 Asn Ala Leu Ile Arg Arg Met Asn Gln Leu Ser Leu Leu Glu Lys Glu  
 930 935 940  
 His Asp Leu Glu Arg Arg Tyr Glu Leu Leu Asn Arg Glu Leu Arg Ala  
 945 950 955 960  
 Met Leu Ala Ile Glu Asp Trp Gln Lys Thr Glu Ala Gln Lys Arg Arg  
 965 970 975  
 Glu Gln Leu Leu Leu Asp Glu Leu Val Ala Leu Val Asn Lys Arg Asp  
 980 985 990  
 Ala Leu Val Arg Asp Leu Asp Ala Gln Glu Lys Gln Ala Glu Glu Glu  
 995 1000 1005  
 Asp Glu His Leu Glu Arg Thr Leu Glu Gln Asn Lys Gly Lys Met Ala  
 1010 1015 1020  
 Lys Lys Glu Glu Lys Cys Val Leu Gln \*  
 1025 1030 1033

<210> 1452  
 <211> 302  
 <212> PRT  
 <213> Homo sapiens

<400> 1452  
 Met Arg Arg Thr Ala Leu Ile Leu Gly Ser Gly Leu Leu Ser Phe Val  
 1 5 10 15  
 Ala Phe Trp Asn Ser Val Thr Trp His Leu Gln Arg Phe Trp Gly Ala  
 20 25 30  
 Ser Gly Tyr Phe Trp Gln Ala Gln Trp Glu Arg Leu Leu Thr Thr Phe  
 35 40 45  
 Glu Gly Lys Glu Trp Ile Leu Phe Phe Ile Gly Ala Ile Gln Val Pro  
 50 55 60  
 Cys Leu Phe Phe Trp Ser Phe Asn Gly Leu Leu Leu Val Val Asp Thr  
 65 70 75 80  
 Thr Gly Lys Pro Asn Phe Ile Ser Arg Tyr Arg Ile Gln Val Gly Lys  
 85 90 95  
 Asn Glu Pro Val Asp Pro Val Lys Leu His Gln Cys Met Ile Ser Phe  
 100 105 110  
 Pro Met Val Val Phe Leu Tyr Pro Phe Leu Lys Trp Trp Arg Asp Pro  
 115 120 125  
 Cys Arg Arg Glu Leu Pro Thr Phe His Trp Phe Leu Leu Glu Leu Ala  
 130 135 140  
 Ile Phe Thr Leu Ile Glu Glu Val Leu Phe Tyr Tyr Ser His Arg Leu  
 145 150 155 160  
 Leu His His Pro Thr Phe Tyr Lys Lys Ile His Lys Lys His His Glu  
 165 170 175  
 Trp Thr Ala Pro Ile Gly Val Ile Ser Leu Tyr Ala His Pro Ile Glu  
 180 185 190  
 His Ala Val Ser Asn Met Leu Pro Val Ile Val Gly Pro Leu Val Met  
 195 200 205  
 Gly Ser His Leu Ser Ser Ile Thr Met Trp Phe Ser Leu Ala Leu Ile  
 210 215 220  
 Ile Thr Thr Ile Ser His Cys Gly Tyr His Leu Pro Phe Leu Pro Ser  
 225 230 235 240  
 Pro Glu Phe His Asp Tyr His His Leu Lys Phe Asn Gln Cys Tyr Gly  
 245 250 255

Val	Leu	Gly	Val	Leu	Asp	His	Leu	His	Gly	Thr	Asp	Thr	Met	Phe	Lys
			260					265					270		
Gln	Thr	Lys	Ala	Tyr	Glu	Arg	His	Val	Leu	Leu	Leu	Gly	Phe	Thr	Pro
		275					280					285			
Leu	Ser	Glu	Ser	Ile	Pro	Asp	Ser	Pro	Lys	Arg	Met	Glu	*		
	290					295					300	301			

&lt;210&gt; 1453

&lt;211&gt; 566

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1453

Met	Tyr	Glu	Arg	Ser	Tyr	Met	His	Arg	Asp	Val	Ile	Thr	His	Val	Val
1				5					10					15	
Cys	Thr	Lys	Thr	Asp	Phe	Ile	Ile	Thr	Ala	Ser	His	Asp	Gly	His	Val
			20					25					30		
Lys	Phe	Trp	Lys	Lys	Ile	Glu	Glu	Gly	Ile	Glu	Phe	Val	Lys	His	Phe
	35					40					45				
Arg	Ser	His	Leu	Gly	Val	Ile	Glu	Ser	Ile	Ala	Val	Ser	Ser	Glu	Gly
	50					55					60				
Ala	Leu	Phe	Cys	Ser	Val	Gly	Asp	Asp	Lys	Ala	Met	Lys	Val	Phe	Asp
	65				70					75				80	
Val	Val	Asn	Phe	Asp	Met	Ile	Asn	Met	Leu	Lys	Leu	Gly	Tyr	Phe	Pro
			85					90						95	
Gly	Gln	Cys	Glu	Trp	Ile	Tyr	Cys	Pro	Gly	Asp	Ala	Ile	Ser	Ser	Val
			100					105					110		
Ala	Ala	Ser	Glu	Lys	Ser	Thr	Gly	Lys	Ile	Phe	Ile	Tyr	Asp	Gly	Arg
		115					120					125			
Gly	Asp	Asn	Gln	Pro	Leu	His	Ile	Phe	Asp	Lys	Leu	His	Thr	Ser	Pro
	130					135					140				
Leu	Thr	Gln	Ile	Arg	Leu	Asn	Pro	Val	Tyr	Lys	Ala	Val	Val	Ser	Ser
	145				150					155					160
Asp	Lys	Ser	Gly	Met	Ile	Glu	Tyr	Trp	Thr	Gly	Pro	Pro	His	Glu	Tyr
			165					170						175	
Lys	Phe	Pro	Lys	Asn	Val	Asn	Trp	Glu	Tyr	Lys	Thr	Asp	Thr	Asp	Leu
			180					185					190		
Tyr	Glu	Phe	Ala	Lys	Cys	Lys	Ala	Tyr	Pro	Thr	Ser	Val	Cys	Phe	Ser
		195					200					205			
Pro	Asp	Gly	Lys	Lys	Ile	Ala	Thr	Ile	Gly	Ser	Asp	Arg	Lys	Val	Arg
	210					215					220				
Ile	Phe	Arg	Phe	Val	Thr	Gly	Lys	Leu	Met	Arg	Val	Phe	Asp	Glu	Ser
	225				230					235				240	
Leu	Ser	Met	Phe	Thr	Glu	Leu	Gln	Gln	Met	Arg	Gln	Gln	Leu	Pro	Asp
			245						250					255	
Met	Glu	Phe	Gly	Arg	Arg	Met	Ala	Val	Glu	Arg	Glu	Leu	Glu	Lys	Val
			260					265					270		
Asp	Ala	Val	Arg	Leu	Ile	Asn	Ile	Val	Phe	Asp	Glu	Thr	Gly	His	Phe
		275					280						285		
Val	Leu	Tyr	Gly	Thr	Met	Leu	Gly	Ile	Lys	Val	Ile	Asn	Val	Glu	Thr
	290					295						300			
Asn	Arg	Cys	Val	Arg	Ile	Leu	Gly	Lys	Gln	Glu	Asn	Ile	Arg	Val	Met
	305				310					315					320
Gln	Leu	Ala	Leu	Phe	Gln	Gly	Ile	Ala	Lys	Lys	His	Arg	Ala	Ala	Thr
			325						330					335	
Thr	Ile	Glu	Met	Lys	Ala	Ser	Glu	Asn	Pro	Val	Leu	Gln	Asn	Ile	Gln
			340					345					350		
Ala	Asp	Pro	Thr	Ile	Val	Cys	Thr	Ser	Phe	Lys	Lys	Asn	Arg	Phe	Tyr
		355					360					365			
Met	Phe	Thr	Lys	Arg	Glu	Pro	Glu	Asp	Thr	Lys	Ser	Ala	Asp	Ser	Asp
	370					375						380			



Arg Asp Val Phe Asn Glu Lys Pro Ser Lys Glu Glu Val Met Ala Ala  
 385 390 395 400  
 Thr Gln Ala Glu Gly Pro Lys Arg Val Ser Asp Ser Ala Ile Ile His  
 405 410 415  
 Thr Ser Met Gly Asp Ile His Thr Lys Leu Phe Pro Val Glu Cys Pro  
 420 425 430  
 Lys Thr Val Glu Asn Phe Cys Val His Ser Arg Asn Gly Tyr Tyr Asn  
 435 440 445  
 Gly His Thr Phe His Arg Ile Ile Lys Gly Phe Met Ile Gln Thr Gly  
 450 455 460  
 Asp Pro Thr Gly Thr Gly Met Gly Gly Glu Ser Ile Trp Gly Gly Glu  
 465 470 475 480  
 Phe Glu Asp Glu Phe His Ser Thr Leu Arg His Asp Arg Pro Tyr Thr  
 485 490 495  
 Leu Ser Met Ala Asn Ala Gly Ser Asn Thr Asn Gly Ser Gln Phe Phe  
 500 505 510  
 Ile Thr Val Val Pro Thr Pro Trp Leu Asp Asn Lys His Thr Val Phe  
 515 520 525  
 Gly Arg Val Thr Lys Gly Met Glu Val Val Gln Arg Ile Ser Asn Val  
 530 535 540  
 Lys Val Asn Pro Lys Thr Asp Lys Pro Tyr Glu Asp Val Ser Ile Ile  
 545 550 555 560  
 Asn Ile Thr Val Lys \*  
 565

&lt;210&gt; 1454

&lt;211&gt; 667

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1454

Met Ala Ala Ser Arg Lys Pro Pro Arg Val Arg Val Asn His Gln Asp  
 1 5 10 15  
 Phe Gln Leu Arg Asn Leu Arg Ile Ile Glu Pro Asn Glu Val Thr His  
 20 25 30  
 Ser Gly Asp Thr Gly Val Glu Thr Asp Gly Arg Met Pro Pro Lys Val  
 35 40 45  
 Thr Ser Glu Leu Leu Arg Gln Leu Arg Gln Ala Met Arg Asn Ser Glu  
 50 55 60  
 Tyr Val Thr Glu Pro Ile Gln Ala Tyr Ile Ile Pro Ser Gly Asp Ala  
 65 70 75 80  
 His Gln Ser Glu Tyr Ile Ala Pro Cys Asp Cys Arg Arg Ala Phe Val  
 85 90 95  
 Ser Gly Phe Asp Gly Ser Ala Gly Thr Ala Ile Ile Thr Glu His  
 100 105 110  
 Ala Ala Met Trp Thr Asp Gly Arg Tyr Phe Leu Gln Ala Lys Gln  
 115 120 125  
 Met Asp Ser Asn Trp Thr Leu Met Lys Met Gly Leu Lys Asp Thr Pro  
 130 135 140  
 Thr Gln Glu Asp Trp Leu Val Ser Val Leu Pro Glu Gly Ser Arg Val  
 145 150 155 160  
 Gly Val Asp Pro Leu Ile Ile Pro Thr Asp Tyr Trp Lys Lys Met Ala  
 165 170 175  
 Lys Val Leu Arg Ser Ala Gly His His Leu Ile Pro Val Lys Glu Asn  
 180 185 190  
 Leu Val Asp Lys Ile Trp Thr Asp Arg Pro Glu Arg Pro Cys Lys Pro  
 195 200 205  
 Leu Leu Thr Leu Gly Leu Asp Tyr Thr Gly Ile Ser Trp Lys Asp Lys  
 210 215 220  
 Val Ala Asp Leu Arg Leu Lys Met Ala Glu Arg Asn Val Met Trp Phe  
 225 230 235 240

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Val Val Thr Ala Leu Asp Glu Ile Ala Trp Leu Phe Asn Leu Arg Gly
                245                250                255
Ser Asp Val Glu His Asn Pro Val Phe Phe Ser Tyr Ala Ile Ile Gly
                260                265                270
Leu Glu Thr Ile Met Leu Phe Ile Asp Gly Asp Arg Ile Asp Ala Pro
                275                280                285
Ser Val Lys Glu His Leu Leu Leu Asp Leu Gly Leu Glu Ala Glu Tyr
                290                295                300
Arg Ile Gln Val His Pro Tyr Lys Ser Ile Leu Ser Glu Leu Lys Ala
305                310                315                320
Leu Cys Ala Asp Leu Ser Pro Arg Glu Lys Val Trp Val Ser Asp Lys
                325                330                335
Ala Ser Tyr Ala Val Ser Glu Thr Ile Pro Lys Asp His Arg Cys Cys
                340                345                350
Met Pro Tyr Thr Pro Ile Cys Ile Ala Lys Ala Val Lys Asn Ser Ala
                355                360                365
Glu Ser Glu Gly Met Arg Arg Ala His Ile Lys Asp Ala Val Ala Leu
370                375                380
Cys Glu Leu Phe Asn Trp Leu Glu Lys Glu Val Pro Lys Gly Gly Val
385                390                395                400
Thr Glu Ile Ser Ala Ala Asp Lys Ala Glu Glu Phe Arg Arg Gln Gln
                405                410                415
Ala Asp Phe Val Asp Leu Ser Phe Pro Thr Ile Ser Ser Thr Gly Pro
                420                425                430
Asn Gly Ala Ile Ile His Tyr Ala Pro Val Pro Glu Thr Asn Arg Thr
                435                440                445
Leu Ser Leu Asp Glu Val Tyr Leu Ile Asp Ser Gly Ala Gln Tyr Lys
450                455                460
Asp Gly Thr Thr Asp Val Thr Arg Thr Met His Phe Gly Thr Pro Thr
465                470                475                480
Ala Tyr Glu Lys Glu Cys Phe Thr Tyr Val Leu Lys Gly His Ile Ala
                485                490                495
Val Ser Ala Ala Val Phe Pro Thr Gly Thr Lys Gly His Leu Leu Asp
                500                505                510
Ser Phe Ala Arg Ser Ala Leu Trp Asp Ser Gly Leu Asp Tyr Leu His
515                520                525
Gly Thr Gly His Gly Val Gly Ser Phe Leu Asn Val His Glu Gly Pro
530                535                540
Cys Gly Ile Ser Tyr Lys Thr Phe Ser Asp Glu Pro Leu Glu Ala Gly
545                550                555                560
Met Ile Val Thr Asp Glu Pro Gly Tyr Tyr Glu Asp Gly Ala Phe Gly
                565                570                575
Ile Arg Ile Glu Asn Val Val Leu Val Val Pro Val Lys Thr Lys Tyr
                580                585                590
Asn Phe Asn Asn Arg Gly Ser Leu Thr Phe Glu Pro Leu Thr Leu Val
595                600                605
Pro Ile Gln Thr Lys Met Ile Asp Val Asp Ser Leu Thr Asp Lys Glu
610                615                620
Cys Asp Trp Leu Asn Asn Tyr His Leu Thr Cys Arg Asp Val Ile Gly
625                630                635                640
Lys Glu Leu Gln Lys Gln Gly Arg Gln Glu Ala Leu Glu Trp Leu Ile
                645                650                655
Arg Glu Thr Gln Pro Ile Ser Lys Gln His *
                660                665 666

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<210> 1455  
 <211> 1553  
 <212> PRT  
 <213> Homo sapiens

<400> 1455

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Met Pro Glu Asn Pro Ala Thr Asp Lys Leu Gln Val Leu Gln Val Leu
 1      5      10      15
Asp Arg Leu Lys Met Lys Leu Gln Glu Lys Gly Asp Thr Ser Gln Asn
      20      25      30
Glu Lys Leu Ser Met Phe Tyr Glu Thr Leu Lys Ser Pro Leu Phe Asn
      35      40      45
Gln Ile Leu Thr Leu Gln Gln Ser Ile Lys Gln Leu Lys Gly Gln Leu
      50      55      60
Asn His Ile Pro Ser Asp Cys Ser Ala Asn Phe Asp Phe Ser Arg Lys
      65      70      75      80
Gly Leu Leu Val Phe Thr Asp Gly Ser Ile Thr Asn Gly Asn Val His
      85      90      95
Arg Pro Ser Asn Asn Ser Thr Val Ser Gly Leu Phe Pro Trp Thr Pro
      100      105      110
Lys Leu Gly Asn Glu Asp Phe Asn Ser Val Ile Gln Gln Met Ala Gln
      115      120      125
Gly Arg Gln Ile Glu Tyr Ile Asp Ile Glu Arg Pro Ser Thr Gly Gly
      130      135      140
Leu Gly Phe Ser Val Val Ala Leu Arg Ser Gln Asn Leu Gly Lys Val
      145      150      155      160
Asp Ile Phe Val Lys Asp Val Gln Pro Gly Ser Val Ala Asp Arg Asp
      165      170      175
Gln Arg Leu Lys Glu Asn Asp Gln Ile Leu Ala Ile Asn His Thr Pro
      180      185      190
Leu Asp Gln Asn Ile Ser His Gln Gln Ala Ile Ala Leu Leu Gln Gln
      195      200      205
Thr Thr Gly Ser Leu Arg Leu Ile Val Ala Arg Glu Pro Val His Thr
      210      215      220
Lys Ser Ser Thr Ser Ser Leu Asn Asp Thr Thr Leu Pro Glu Thr
      225      230      235      240
Val Cys Trp Gly His Val Glu Glu Val Glu Leu Ile Asn Asp Gly Ser
      245      250      255
Gly Leu Gly Phe Gly Ile Val Gly Gly Lys Thr Ser Gly Val Val Val
      260      265      270
Arg Thr Ile Val Pro Gly Gly Leu Ala Asp Arg Asp Gly Arg Leu Gln
      275      280      285
Thr Gly Asp His Ile Leu Lys Ile Gly Gly Thr Asn Val Gln Gly Met
      290      295      300
Thr Ser Glu Gln Val Ala Gln Val Leu Arg Asn Cys Gly Asn Ser Val
      305      310      315      320
Arg Met Leu Val Ala Arg Asp Pro Ala Gly Asp Ile Ser Val Thr Pro
      325      330      335
Pro Ala Pro Ala Ala Leu Pro Val Ala Leu Pro Thr Val Ala Ser Lys
      340      345      350
Gly Pro Gly Ser Asp Ser Ser Leu Phe Glu Thr Tyr Asn Val Glu Leu
      355      360      365
Val Arg Lys Asp Gly Gln Ser Leu Gly Ile Arg Ile Val Gly Tyr Val
      370      375      380
Gly Thr Ser His Thr Gly Glu Ala Ser Gly Ile Tyr Val Lys Ser Ile
      385      390      395      400
Ile Pro Gly Ser Ala Ala Tyr His Asn Gly His Ile Gln Val Asn Asp
      405      410      415
Lys Ile Val Ala Val Asp Gly Val Asn Ile Gln Gly Phe Ala Asn His
      420      425      430
Asp Val Val Glu Val Leu Arg Asn Ala Gly Gln Val Val His Leu Thr
      435      440      445
Leu Val Arg Arg Lys Thr Ser Ser Ser Thr Ser Pro Leu Glu Pro Pro
      450      455      460
Ser Asp Arg Gly Thr Val Val Glu Pro Leu Lys Pro Pro Ala Leu Phe
      465      470      475      480
Leu Thr Gly Ala Val Glu Thr Glu Thr Asn Val Asp Gly Glu Asp Glu
      485      490      495
Glu Ile Lys Glu Arg Ile Asp Thr Leu Lys Asn Asp Asn Ile Gln Ala
      500      505      510

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Leu	Glu	Lys	Leu	Glu	Lys	Val	Pro	Asp	Ser	Pro	Glu	Asn	Glu	Leu	Lys
	515						520					525			
Ser	Arg	Trp	Glu	Asn	Leu	Leu	Gly	Pro	Asp	Tyr	Glu	Val	Met	Val	Ala
	530					535					540				
Thr	Leu	Asp	Thr	Gln	Ile	Ala	Asp	Asp	Ala	Glu	Leu	Gln	Lys	Tyr	Ser
	545				550					555					560
Lys	Leu	Leu	Pro	Ile	His	Thr	Leu	Arg	Leu	Gly	Val	Glu	Val	Asp	Ser
			565						570					575	
Phe	Asp	Gly	His	His	Tyr	Ile	Ser	Ser	Ile	Val	Ser	Gly	Gly	Pro	Val
			580					585					590		
Asp	Thr	Leu	Gly	Leu	Leu	Gln	Pro	Glu	Asp	Glu	Leu	Leu	Glu	Val	Asn
	595						600					605			
Gly	Met	Gln	Leu	Tyr	Gly	Lys	Ser	Arg	Arg	Glu	Ala	Val	Ser	Phe	Leu
	610					615					620				
Lys	Glu	Val	Pro	Pro	Pro	Phe	Thr	Leu	Val	Cys	Cys	Arg	Arg	Leu	Phe
	625				630					635					640
Asp	Asp	Glu	Ala	Ser	Val	Asp	Glu	Pro	Arg	Arg	Thr	Glu	Thr	Ser	Leu
			645						650					655	
Pro	Glu	Thr	Glu	Val	Asp	His	Asn	Met	Asp	Val	Asn	Thr	Glu	Glu	Asp
			660					665					670		
Asp	Asp	Gly	Glu	Leu	Ala	Leu	Trp	Ser	Pro	Glu	Val	Lys	Ile	Val	Glu
	675						680					685			
Leu	Val	Lys	Asp	Cys	Lys	Gly	Leu	Gly	Phe	Ser	Ile	Leu	Asp	Tyr	Gln
	690					695					700				
Asp	Pro	Leu	Asp	Pro	Thr	Arg	Ser	Val	Ile	Val	Ile	Arg	Ser	Leu	Val
	705				710					715					720
Ala	Asp	Gly	Val	Ala	Glu	Arg	Ser	Gly	Gly	Leu	Leu	Pro	Gly	Asp	Arg
			725					730						735	
Leu	Val	Ser	Val	Asn	Glu	Tyr	Arg	Leu	Asp	Asn	Thr	Ser	Leu	Ala	Glu
			740					745					750		
Ala	Val	Glu	Ile	Leu	Lys	Ala	Val	Pro	Pro	Gly	Leu	Val	His	Leu	Gly
	755						760					765			
Ile	Cys	Lys	Pro	Leu	Val	Glu	Asp	Asn	Glu	Glu	Glu	Ser	Cys	Tyr	Ile
	770					775					780				
Leu	His	Ser	Ser	Ser	Asn	Glu	Asp	Lys	Thr	Glu	Phe	Ser	Gly	Thr	Ile
	785				790					795					800
His	Asp	Ile	Asn	Ser	Ser	Leu	Ile	Leu	Glu	Ala	Pro	Lys	Gly	Phe	Arg
			805						810					815	
Asp	Glu	Pro	Tyr	Phe	Lys	Glu	Glu	Leu	Val	Asp	Glu	Pro	Phe	Leu	Asp
			820					825					830		
Leu	Gly	Lys	Ser	Phe	His	Ser	Gln	Gln	Lys	Glu	Ile	Glu	Gln	Ser	Lys
	835						840					845			
Glu	Ala	Trp	Glu	Met	His	Glu	Phe	Leu	Thr	Pro	Arg	Leu	Gln	Glu	Met
	850					855					860				
Asp	Glu	Glu	Arg	Glu	Met	Leu	Val	Asp	Glu	Glu	Tyr	Glu	Leu	Tyr	Gln
	865				870					875					880
Asp	Pro	Ser	Pro	Ser	Met	Glu	Leu	Tyr	Pro	Leu	Ser	His	Ile	Gln	Glu
			885						890					895	
Ala	Thr	Pro	Val	Pro	Ser	Val	Asn	Glu	Leu	His	Phe	Gly	Thr	Gln	Trp
			900					905					910		
Leu	His	Asp	Asn	Glu	Pro	Ser	Glu	Ser	Gln	Glu	Ala	Arg	Thr	Gly	Arg
	915						920					925			
Thr	Val	Tyr	Ser	Gln	Glu	Ala	Gln	Pro	Tyr	Gly	Tyr	Cys	Pro	Glu	Asn
	930					935					940				
Val	Met	Lys	Glu	Asn	Phe	Val	Met	Glu	Ser	Leu	Pro	Ser	Val	Pro	Ser
	945				950					955					960
Thr	Glu	Gly	Asn	Ser	Gln	Gln	Gly	Arg	Phe	Asp	Asp	Leu	Glu	Asn	Leu
			965						970					975	
Asn	Ser	Leu	Ala	Lys	Thr	Ser	Leu	Asp	Leu	Gly	Met	Ile	Pro	Asn	Asp
			980					985					990		
Val	Gln	Gly	Pro	Ser	Leu	Leu	Ile	Asp	Leu	Pro	Val	Val	Ala	Gln	Arg
	995					1000					1005				
Arg	Glu	Gln	Glu	Asp	Leu	Leu	Tyr	Gln	His	Gln	Ala	Thr	Arg	Val	
	1010					1015					1020				

Ile Ser Lys Ala Ser Ala Tyr Thr Gly Met Leu Ser Ser Arg Tyr Ala  
 1025 1030 1035 1040  
 Thr Asp Thr Cys Glu Leu Pro Glu Arg Glu Glu Gly Glu Gly Glu Glu  
 1045 1050 1055  
 Thr Pro Asn Phe Ser His Trp Gly Pro Pro Arg Ile Val Glu Ile Phe  
 1060 1065 1070  
 Arg Glu Pro Asn Val Ser Leu Gly Ile Ser Ile Val Gly Gly Gln Thr  
 1075 1080 1085  
 Val Ile Lys Arg Leu Lys Asn Gly Glu Glu Leu Lys Gly Ile Phe Ile  
 1090 1095 1100  
 Lys Gln Val Leu Glu Asp Ser Pro Ala Gly Lys Thr Asn Ala Leu Lys  
 1105 1110 1115 1120  
 Thr Gly Asp Lys Ile Leu Glu Val Ser Gly Val Asp Leu Gln Asn Ala  
 1125 1130 1135  
 Ser His Ser Glu Ala Val Glu Ala Ile Lys Asn Ala Gly Asn Pro Val  
 1140 1145 1150  
 Val Phe Ile Val Gln Ser Leu Ser Ser Thr Pro Arg Val Ile Pro Asn  
 1155 1160 1165  
 Val His Asn Lys Ala Asn Lys Ile Thr Gly Asn Gln Asn Gln Asp Thr  
 1170 1175 1180  
 Gln Glu Lys Lys Glu Lys Arg Gln Gly Thr Ala Pro Pro Pro Met Lys  
 1185 1190 1195 1200  
 Leu Pro Pro Pro Tyr Lys Ala Leu Thr Asp Asp Ser Asp Glu Asn Glu  
 1205 1210 1215  
 Glu Glu Asp Ala Phe Thr Asp Gln Lys Ile Arg Gln Arg Tyr Ala Asp  
 1220 1225 1230  
 Leu Pro Gly Glu Leu His Ile Ile Glu Leu Glu Lys Asp Lys Asn Gly  
 1235 1240 1245  
 Leu Gly Leu Ser Leu Ala Gly Asn Lys Asp Arg Ser Arg Met Ser Ile  
 1250 1255 1260  
 Phe Val Val Gly Ile Asn Pro Glu Gly Pro Ala Ala Ala Asp Gly Arg  
 1265 1270 1275 1280  
 Met Arg Ile Gly Asp Glu Leu Leu Glu Ile Asn Asn Gln Ile Leu Tyr  
 1285 1290 1295  
 Gly Arg Ser His Gln Asn Ala Ser Ala Ile Ile Lys Thr Ala Pro Ser  
 1300 1305 1310  
 Lys Val Lys Leu Val Phe Ile Arg Asn Glu Asp Ala Val Asn Gln Met  
 1315 1320 1325  
 Ala Val Thr Pro Phe Pro Val Pro Ser Ser Ser Pro Ser Ser Ile Glu  
 1330 1335 1340  
 Asp Gln Ser Gly Thr Glu Pro Ile Ser Ser Glu Glu Asp Gly Ser Leu  
 1345 1350 1355 1360  
 Glu Val Gly Ile Lys Gln Leu Pro Glu Ser Glu Ser Phe Lys Leu Ala  
 1365 1370 1375  
 Val Ser Gln Met Lys Gln Gln Lys Tyr Pro Thr Lys Val Ser Phe Ser  
 1380 1385 1390  
 Ser Gln Glu Ile Pro Leu Ala Pro Ala Ser Ser Tyr His Ser Thr Asp  
 1395 1400 1405  
 Ala Asp Phe Thr Gly Tyr Gly Gly Phe Gln Ala Pro Leu Ser Val Asp  
 1410 1415 1420  
 Pro Ala Thr Cys Pro Ile Val Pro Gly Gln Glu Met Ile Ile Glu Ile  
 1425 1430 1435 1440  
 Ser Lys Gly Arg Ser Gly Leu Gly Leu Ser Ile Val Gly Gly Lys Asp  
 1445 1450 1455  
 Thr Pro Leu Asn Ala Ile Val Ile His Glu Val Tyr Glu Glu Gly Ala  
 1460 1465 1470  
 Ala Ala Arg Asp Gly Arg Leu Trp Ala Gly Asp Gln Ile Leu Glu Val  
 1475 1480 1485  
 Asn Gly Val Asp Leu Arg Asn Ser Ser His Glu Glu Ala Ile Thr Ala  
 1490 1495 1500  
 Leu Arg Gln Thr Pro Gln Lys Val Arg Leu Val Val Tyr Arg Asp Glu  
 1505 1510 1515 1520  
 Ala His Tyr Arg Asp Glu Glu Asn Leu Glu Ile Phe Pro Val Asp Leu  
 1525 1530 1535

Gln Lys Lys Ala Gly Arg Gly Leu Gly Leu Ser Ile Val Gly Lys Arg  
 1540 1545 1550 1552

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<210> 1456  
 <211> 284  
 <212> PRT  
 <213> Homo sapiens

<400> 1456  
 Met Leu Pro Leu Ser Asp Gly Pro Glu Gly Ser Ser Ser Arg Pro Gln  
 1 5 10 15  
 Met Ile Arg Gly Arg Leu Cys Asp Asp Thr Lys Pro Glu Thr Phe Asn  
 20 25 30  
 Gln Leu Trp Thr Val Glu Glu Gln Lys Lys Leu Glu Gln Leu Leu Ile  
 35 40 45  
 Lys Tyr Pro Pro Glu Glu Val Glu Ser Arg Arg Trp Gln Lys Ile Ala  
 50 55 60  
 Asp Glu Leu Gly Asn Arg Thr Ala Lys Gln Val Ala Ser Arg Val Gln  
 65 70 75 80  
 Lys Tyr Phe Ile Lys Leu Thr Lys Ala Gly Ile Pro Val Pro Gly Arg  
 85 90 95  
 Thr Pro Asn Leu Tyr Ile Tyr Ser Lys Lys Ser Ser Thr Ser Arg Arg  
 100 105 110  
 Gln His Pro Leu Asn Lys His Leu Phe Lys Pro Ser Thr Phe Met Thr  
 115 120 125  
 Ser His Glu Pro Pro Val Tyr Met Asp Glu Asp Asp Asp Arg Ser Cys  
 130 135 140  
 Phe His Ser His Met Asn Thr Ala Val Glu Asp Ala Ser Asp Asp Glu  
 145 150 155 160  
 Ser Ile Pro Ile Met Tyr Arg Asn Leu Pro Glu Tyr Lys Glu Leu Leu  
 165 170 175  
 Gln Phe Lys Lys Leu Lys Lys Gln Lys Leu Gln Gln Met Gln Ala Glu  
 180 185 190  
 Ser Gly Phe Val Gln His Val Gly Phe Lys Cys Asp Asn Cys Gly Ile  
 195 200 205  
 Glu Pro Ile Gln Gly Val Arg Trp His Cys Gln Asp Cys Pro Pro Glu  
 210 215 220  
 Met Ser Leu Asp Phe Cys Asp Ser Cys Ser Asp Cys Leu His Glu Thr  
 225 230 235 240  
 Asp Ile His Lys Glu Asp His Gln Leu Glu Pro Ile Tyr Arg Ser Glu  
 245 250 255  
 Thr Phe Leu Asp Arg Asp Tyr Cys Val Ser Gln Gly Thr Ser Tyr Asn  
 260 265 270  
 Tyr Leu Asp Pro Asn Tyr Phe Pro Ala Asn Arg \*  
 275 280 283

<210> 1457  
 <211> 252  
 <212> PRT  
 <213> Homo sapiens

<400> 1457  
 Met Leu Pro Leu Ser Asp Gly Pro Glu Gly Ser Ser Ser Arg Pro Gln  
 1 5 10 15  
 Met Ile Arg Gly Arg Leu Cys Asp Asp Thr Lys Pro Glu Thr Phe Asn  
 20 25 30

Gln Leu Trp Thr Val Glu Glu Gln Lys Lys Leu Glu Gln Leu Leu Ile  
 35 40 45  
 Lys Tyr Pro Pro Glu Glu Val Glu Ser Arg Arg Trp Gln Lys Ile Ala  
 50 55 60  
 Asp Glu Leu Gly Asn Arg Thr Ala Lys Gln Ser Ser Thr Ser Arg Arg  
 65 70 75 80  
 Gln His Pro Leu Asn Lys His Leu Phe Lys Pro Ser Thr Phe Met Thr  
 85 90 95  
 Ser His Glu Pro Pro Val Tyr Met Asp Glu Asp Asp Asp Arg Ser Cys  
 100 105 110  
 Phe His Ser His Met Asn Thr Ala Val Glu Asp Ala Ser Asp Asp Glu  
 115 120 125  
 Ser Ile Pro Ile Met Tyr Arg Asn Leu Pro Glu Tyr Lys Glu Leu Leu  
 130 135 140  
 Gln Phe Lys Lys Leu Lys Lys Gln Lys Leu Gln Gln Met Gln Ala Glu  
 145 150 155 160  
 Ser Gly Phe Val Gln His Val Gly Phe Lys Cys Asp Asn Cys Gly Ile  
 165 170 175  
 Glu Pro Ile Gln Gly Val Arg Trp His Cys Gln Asp Cys Pro Pro Glu  
 180 185 190  
 Met Ser Leu Asp Phe Cys Asp Ser Cys Ser Asp Cys Leu His Glu Thr  
 195 200 205  
 Asp Ile His Lys Glu Asp His Gln Leu Glu Pro Ile Tyr Arg Ser Glu  
 210 215 220  
 Thr Phe Leu Asp Arg Asp Tyr Cys Val Ser Gln Gly Thr Ser Tyr Asn  
 225 230 235 240  
 Tyr Leu Asp Pro Asn Tyr Phe Pro Ala Asn Arg \*  
 245 250 251

<210> 1458  
 <211> 467  
 <212> PRT  
 <213> Homo sapiens

<400> 1458  
 Met Ala Ser His Glu Thr Met Ala Ala Gly Thr Leu Tyr Thr Tyr Pro  
 1 5 10 15  
 Glu Asn Trp Arg Ala Phe Lys Ala Leu Ile Ala Ala Gln Tyr Ser Gly  
 20 25 30  
 Ala His Val Arg Val Leu Ser Ala Pro His Phe His Phe Gly Gln  
 35 40 45  
 Thr Asn Arg Thr Pro Glu Phe Leu Arg Lys Phe Pro Ala Gly Lys Val  
 50 55 60  
 Pro Ala Phe Glu Gly Asp Asp Gly Phe Cys Val Phe Glu Ser Asn Ala  
 65 70 75 80  
 Ile Ala Tyr Tyr Val Ser Asn Glu Glu Leu Arg Gly Ser Thr Pro Glu  
 85 90 95  
 Ala Ala Ala Gln Val Val Gln Trp Val Ser Phe Ala Asp Ser Asp Ile  
 100 105 110  
 Val Pro Pro Ala Ser Thr Trp Val Phe Pro Thr Leu Gly Ile Met His  
 115 120 125  
 His Asn Lys Gln Ala Thr Glu Asn Ala Lys Glu Glu Val Arg Arg Ile  
 130 135 140  
 Leu Gly Leu Leu Asp Ala Tyr Leu Lys Thr Arg Thr Phe Leu Val Gly  
 145 150 155 160  
 Glu Arg Val Thr Leu Ala Asp Ile Thr Val Val Cys Thr Leu Leu Trp  
 165 170 175  
 Leu Tyr Lys Gln Val Leu Glu Pro Ser Phe Arg Gln Ala Phe Pro Asn  
 180 185 190  
 Thr Asn Arg Trp Phe Leu Thr Cys Ile Asn Gln Pro Gln Phe Arg Ala  
 195 200 205

Val Leu Gly Glu Val Lys Leu Cys Glu Lys Met Ala Gln Phe Asp Ala  
 210 215 220  
 Lys Lys Phe Ala Glu Thr Gln Pro Lys Lys Asp Thr Pro Arg Lys Glu  
 225 230 235 240  
 Lys Gly Ser Arg Glu Glu Lys Gln Lys Pro Gln Ala Glu Arg Lys Glu  
 245 250 255  
 Glu Lys Lys Ala Ala Ala Pro Ala Pro Glu Glu Glu Met Asp Glu Cys  
 260 265 270  
 Glu Gln Ala Leu Ala Ala Glu Pro Lys Ala Lys Asp Pro Phe Ala His  
 275 280 285  
 Leu Pro Lys Ser Thr Phe Val Leu Asp Glu Phe Lys Arg Lys Tyr Ser  
 290 295 300  
 Asn Glu Asp Thr Leu Ser Val Ala Leu Pro Tyr Phe Trp Glu His Phe  
 305 310 315 320  
 Asp Lys Asp Gly Trp Ser Leu Trp Tyr Ser Glu Tyr Arg Phe Pro Glu  
 325 330 335  
 Glu Leu Thr Gln Thr Phe Met Ser Cys Asn Leu Ile Thr Gly Met Phe  
 340 345 350  
 Gln Arg Leu Asp Lys Leu Arg Lys Asn Ala Phe Ala Ser Val Ile Leu  
 355 360 365  
 Phe Gly Thr Asn Asn Ser Ser Ser Ile Ser Gly Val Trp Val Phe Arg  
 370 375 380  
 Gly Gln Glu Leu Ala Phe Pro Leu Ser Pro Asp Trp Gln Val Asp Tyr  
 385 390 395 400  
 Glu Ser Tyr Thr Trp Arg Lys Leu Asp Pro Gly Ser Glu Glu Thr Gln  
 405 410 415  
 Thr Leu Val Arg Glu Tyr Phe Ser Trp Glu Gly Ala Phe Gln His Val  
 420 425 430  
 Ala Lys Pro Ser Ile Arg Ala Arg Ser Ser Ser Glu His Leu Leu Pro  
 435 440 445  
 Ser Pro Ser Cys Leu His Leu Pro Phe Arg Glu Met Gly Val Ile Lys  
 450 455 460  
 Gly Asn \*  
 465 466

<210> 1459  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 1459  
 Met Ala Pro Ala Lys Lys Gly Gly Glu Lys Lys Lys Gly Arg Ser Ala  
 1 5 10 15  
 Ile Asn Glu Val Val Thr Arg Glu Tyr Thr Ile Asn Ile His Lys Arg  
 20 25 30  
 Ile His Gly Val Gly Phe Lys Lys Arg Ala Pro Arg Ala Leu Lys Glu  
 35 40 45  
 Ile Arg Lys Phe Ala Met Lys Glu Met Gly Thr Pro Asp Val Arg Ile  
 50 55 60  
 Asp Thr Arg Leu Asn Lys Ala Val Trp Ala Lys Gly Ile Arg Asn Val  
 65 70 75 80  
 Pro Tyr Arg Ile Arg Val Arg Leu Ser Arg Lys Arg Asn Glu Asp Glu  
 85 90 95  
 Asp Ser Pro Asn Lys Leu Tyr Thr Leu Val Thr Tyr Val Pro Val Thr  
 100 105 110  
 Thr Phe Lys Asn Leu Gln Thr Val Asn Val Asp Glu Asn  
 115 120 125

<210> 1460



<211> 636  
 <212> PRT  
 <213> Homo sapiens

<400> 1460  
 Met Pro Leu Pro Leu Leu Pro Met Asp Leu Lys Gly Glu Pro Gly Pro  
 1 5 10 15  
 Pro Gly Lys Pro Gly Pro Trp Gly Pro Gly Pro Gly Phe Pro  
 20 25 30  
 Gly Lys Pro Gly His Gly Lys Pro Gly Leu His Gly Gln Pro Gly Pro  
 35 40 45  
 Ala Gly Pro Pro Gly Phe Ser Arg Met Gly Lys Ala Gly Pro Pro Gly  
 50 55 60  
 Leu Pro Gly Asn Val Gly Pro Pro Gly Gln Pro Gly Leu Arg Gly Glu  
 65 70 75 80  
 Pro Gly Ile Arg Gly Asp Gln Gly Leu Arg Gly Pro Pro Gly Pro Pro  
 85 90 95  
 Gly Leu Pro Gly Pro Ser Gly Ile Thr Ile Pro Gly Lys Pro Gly Ala  
 100 105 110  
 Gln Gly Val Pro Gly Pro Pro Gly Phe Gln Gly Glu Pro Gly Pro Gln  
 115 120 125  
 Gly Glu Pro Gly Pro Pro Gly Asp Arg Gly Leu Lys Gly Asp Asn Gly  
 130 135 140  
 Val Gly Gln Pro Gly Leu Pro Gly Ala Pro Gly Gln Gly Gly Ala Pro  
 145 150 155 160  
 Gly Pro Pro Gly Leu Pro Gly Pro Ala Gly Leu Gly Lys Pro Gly Leu  
 165 170 175  
 Asp Gly Leu Pro Gly Ala Pro Gly Asp Lys Gly Glu Ser Gly Pro Pro  
 180 185 190  
 Gly Val Pro Gly Pro Arg Gly Glu Pro Gly Ala Val Gly Pro Lys Gly  
 195 200 205  
 Pro Pro Gly Val Asp Gly Val Gly Val Pro Gly Ala Ala Gly Leu Pro  
 210 215 220  
 Gly Pro Gln Gly Pro Ser Gly Ala Lys Gly Glu Pro Gly Thr Arg Gly  
 225 230 235 240  
 Pro Pro Gly Leu Ile Gly Pro Thr Gly Tyr Gly Met Pro Gly Leu Pro  
 245 250 255  
 Gly Pro Lys Gly Asp Arg Gly Pro Ala Gly Val Pro Gly Leu Leu Gly  
 260 265 270  
 Asp Arg Gly Glu Pro Gly Glu Asp Gly Glu Pro Gly Glu Gln Gly Pro  
 275 280 285  
 Gln Gly Leu Gly Gly Pro Pro Gly Leu Pro Gly Ser Ala Gly Leu Pro  
 290 295 300  
 Gly Arg Arg Gly Pro Pro Gly Pro Lys Gly Glu Ala Gly Pro Gly Gly  
 305 310 315 320  
 Pro Pro Gly Val Pro Gly Ile Arg Gly Asp Gln Gly Pro Ser Gly Leu  
 325 330 335  
 Ala Gly Lys Pro Gly Val Pro Gly Glu Arg Gly Leu Pro Gly Ala His  
 340 345 350  
 Gly Pro Pro Gly Pro Thr Gly Pro Lys Gly Glu Pro Gly Phe Thr Gly  
 355 360 365  
 Arg Pro Gly Gly Pro Gly Val Ala Gly Ala Leu Gly Gln Lys Gly Asp  
 370 375 380  
 Leu Gly Leu Pro Gly Gln Pro Gly Leu Arg Gly Pro Ser Gly Ile Pro  
 385 390 395 400  
 Gly Leu Gln Gly Pro Ala Gly Pro Ile Gly Pro Gln Gly Leu Pro Gly  
 405 410 415  
 Leu Lys Gly Glu Pro Gly Leu Pro Gly Pro Pro Gly Glu Gly Arg Ala  
 420 425 430  
 Gly Glu Pro Gly Thr Ala Gly Pro Arg Gly Pro Pro Gly Val Pro Gly  
 435 440 445  
 Ser Pro Gly Ile Thr Gly Pro Gly Leu Pro Gly Pro Pro Gly Ala  
 450 455 460

Pro Gly Ala Phe Asp Glu Thr Gly Ile Ala Gly Leu His Leu Pro Asn  
 465 470 475 480  
 Gly Gly Val Glu Gly Ala Val Leu Gly Lys Gly Gly Lys Pro Gln Phe  
 485 490 495  
 Gly Leu Gly Glu Leu Ser Ala His Ala Thr Pro Ala Phe Thr Ala Val  
 500 505 510  
 Leu Thr Ser Pro Leu Pro Ala Ser Gly Met Pro Val Lys Phe Asp Arg  
 515 520 525  
 Thr Leu Tyr Asn Gly His Ser Gly Tyr Asn Pro Ala Thr Gly Ile Phe  
 530 535 540  
 Thr Cys Pro Val Gly Gly Val Tyr Tyr Phe Ala Tyr His Val His Val  
 545 550 555 560  
 Lys Gly Thr Asn Val Trp Val Ala Leu Tyr Lys Asn Asn Val Pro Ala  
 565 570 575  
 Thr Tyr Thr Tyr Asp Glu Tyr Lys Lys Gly Tyr Leu Asp Gln Ala Ser  
 580 585 590  
 Gly Gly Ala Val Leu Gln Leu Arg Pro Asn Asp Gln Val Trp Val Gln  
 595 600 605  
 Met Pro Ser Asp Gln Ala Asn Gly Leu Tyr Ser Thr Glu Tyr Ile His  
 610 615 620  
 Ser Ser Phe Ser Gly Phe Leu Leu Cys Pro Thr \*  
 625 630 635

<210> 1461  
 <211> 241  
 <212> PRT  
 <213> Homo sapiens

<400> 1461  
 Met Asp Ser Pro Arg Ala Gly Thr His Gln Gly Pro Leu Asp Ala Glu  
 1 5 10 15  
 Thr Glu Val Gly Ala Asp Arg Cys Thr Ser Thr Ala Tyr Gln Glu Gln  
 20 25 30  
 Arg Pro Gln Val Glu Gln Val Gly Lys Gln Ala Pro Leu Ser Pro Gly  
 35 40 45  
 Leu Pro Ala Met Gly Gly Pro Gly Pro Gly Pro Cys Glu Asp Pro Ala  
 50 55 60  
 Gly Ala Gly Gly Ala Gly Ala Gly Gly Ser Glu Pro Leu Val Thr Val  
 65 70 75 80  
 Thr Val Gln Cys Ala Phe Thr Val Ala Leu Arg Ala Arg Arg Gly Ala  
 85 90 95  
 Asp Leu Ser Ser Leu Arg Ala Leu Leu Gly Gln Ala Leu Pro His Gln  
 100 105 110  
 Ala Gln Leu Gly Gln Leu Ser Tyr Leu Ala Pro Gly Glu Asp Gly His  
 115 120 125  
 Trp Val Pro Ile Pro Glu Glu Ser Leu Gln Arg Ala Trp Gln Asp  
 130 135 140  
 Ala Ala Ala Cys Pro Arg Gly Leu Gln Leu Gln Cys Arg Gly Ala Gly  
 145 150 155 160  
 Gly Arg Pro Val Leu Tyr Gln Val Val Ala Gln His Ser Tyr Ser Ala  
 165 170 175  
 Gln Gly Pro Glu Asp Leu Gly Phe Arg Gln Gly Asp Thr Val Asp Val  
 180 185 190  
 Leu Cys Glu Val Asp Gln Ala Trp Leu Glu Gly His Cys Asp Gly Arg  
 195 200 205  
 Ile Gly Ile Phe Pro Lys Cys Phe Val Val Pro Ala Gly Pro Arg Met  
 210 215 220  
 Ser Gly Ala Pro Gly Arg Leu Pro Arg Ser Gln Gln Gly Asp Gln Pro  
 225 230 235 240  
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<210> 1462  
 <211> 362  
 <212> PRT  
 <213> Homo sapiens

<400> 1462  
 Met Trp Val Leu Thr Pro Ala Ala Phe Ala Gly Lys Leu Leu Ser Val  
 1 5 10 15  
 Phe Arg Gln Pro Leu Ser Ser Leu Trp Arg Ser Leu Val Pro Leu Phe  
 20 25 30  
 Cys Trp Leu Arg Ala Thr Phe Trp Leu Leu Ala Thr Lys Arg Arg Lys  
 35 40 45  
 Gln Gln Leu Val Leu Arg Gly Pro Asp Glu Thr Lys Glu Glu Glu Glu  
 50 55 60  
 Asp Pro Pro Leu Pro Thr Thr Pro Thr Ser Val Asn Tyr His Phe Thr  
 65 70 75 80  
 Arg Gln Cys Asn Tyr Lys Cys Gly Phe Cys Phe His Thr Ala Lys Thr  
 85 90 95  
 Ser Phe Val Leu Pro Leu Glu Glu Ala Lys Arg Gly Leu Leu Leu Leu  
 100 105 110  
 Lys Glu Ala Gly Met Glu Lys Ile Asn Phe Ser Gly Gly Glu Pro Phe  
 115 120 125  
 Leu Gln Asp Arg Gly Glu Tyr Leu Gly Lys Leu Val Arg Phe Cys Lys  
 130 135 140  
 Val Glu Leu Arg Leu Pro Ser Val Thr Ile Val Ser Asn Gly Ser Leu  
 145 150 155 160  
 Ile Arg Glu Arg Trp Phe Gln Asn Tyr Gly Glu Tyr Leu Asp Ile Leu  
 165 170 175  
 Ala Ile Ser Cys Asp Ser Phe Asp Glu Val Asn Val Leu Ile Gly  
 180 185 190  
 Arg Gly Gln Gly Lys Lys Asn His Val Glu Asn Leu Gln Lys Leu Arg  
 195 200 205  
 Arg Trp Cys Arg Asp Tyr Arg Val Ala Phe Lys Ile Asn Ser Val Ile  
 210 215 220  
 Asn Arg Phe Asn Val Glu Glu Asp Met Thr Glu Gln Ile Lys Ala Leu  
 225 230 235 240  
 Asn Pro Val Arg Trp Lys Val Phe Gln Cys Leu Leu Ile Glu Gly Glu  
 245 250 255  
 Asn Cys Gly Glu Asp Ala Leu Arg Glu Ala Glu Arg Phe Val Ile Gly  
 260 265 270  
 Asp Glu Glu Phe Glu Arg Phe Leu Glu Arg His Lys Glu Val Ser Cys  
 275 280 285  
 Leu Val Pro Glu Ser Asn Gln Lys Met Lys Asp Ser Tyr Leu Ile Leu  
 290 295 300  
 Asp Glu Tyr Met Arg Phe Leu Asn Cys Arg Lys Gly Arg Lys Asp Pro  
 305 310 315 320  
 Ser Lys Ser Ile Leu Asp Val Gly Val Glu Glu Ala Ile Lys Phe Ser  
 325 330 335  
 Gly Phe Asp Glu Lys Met Phe Leu Lys Arg Gly Gly Lys Tyr Ile Trp  
 340 345 350  
 Ser Lys Ala Asp Leu Lys Leu Asp Trp \*  
 355 360 361

<210> 1463  
 <211> 1031  
 <212> PRT  
 <213> Homo sapiens

<400> 1463

Met	Gly	Phe	Asp	Leu	Gln	Asn	Val	Trp	Arg	Val	Ser	His	Ile	Asn	Ser
1				5					10					15	
Asn	Tyr	Lys	Leu	Cys	Pro	Ser	Tyr	Pro	Gln	Lys	Leu	Leu	Val	Pro	Val
		20						25					30		
Trp	Ile	Thr	Asp	Lys	Glu	Leu	Glu	Asn	Val	Ala	Ser	Phe	Arg	Ser	Trp
		35					40					45			
Lys	Arg	Ile	Pro	Val	Val	Val	Tyr	Arg	His	Leu	Arg	Asn	Gly	Ala	Ala
	50					55					60				
Ile	Ala	Arg	Cys	Ser	Gln	Pro	Glu	Ile	Ser	Trp	Trp	Gly	Trp	Arg	Asn
65					70					75				80	
Ala	Asp	Asp	Glu	Tyr	Leu	Val	Thr	Ser	Ile	Ala	Lys	Ala	Cys	Ala	Leu
				85					90				95		
Asp	Pro	Gly	Thr	Arg	Ala	Thr	Gly	Gly	Ser	Leu	Ser	Thr	Gly	Asn	Asn
			100					105					110		
Asp	Thr	Ser	Glu	Ala	Cys	Asp	Ala	Asp	Phe	Asp	Ser	Ser	Leu	Thr	Ala
		115					120					125			
Cys	Ser	Gly	Val	Glu	Ser	Thr	Ala	Ala	Pro	Gln	Lys	Leu	Leu	Ile	Leu
	130					135					140				
Asp	Ala	Arg	Ser	Tyr	Thr	Ala	Ala	Val	Ala	Asn	Arg	Ala	Lys	Gly	Gly
145				150						155				160	
Gly	Cys	Glu	Cys	Glu	Glu	Tyr	Tyr	Pro	Asn	Cys	Glu	Val	Val	Phe	Met
			165					170						175	
Gly	Met	Ala	Asn	Ile	His	Ala	Ile	Arg	Asn	Ser	Phe	Gln	Tyr	Leu	Arg
			180					185					190		
Ala	Val	Cys	Ser	Gln	Met	Pro	Asp	Pro	Ser	Asn	Trp	Leu	Ser	Ala	Leu
	195					200						205			
Glu	Ser	Thr	Lys	Trp	Leu	Gln	His	Leu	Ser	Val	Met	Leu	Lys	Ala	Ala
	210					215					220				
Val	Leu	Val	Ala	Asn	Thr	Val	Asp	Arg	Glu	Gly	Arg	Pro	Val	Leu	Val
225					230					235				240	
His	Cys	Ser	Asp	Gly	Trp	Asp	Arg	Thr	Pro	Gln	Ile	Val	Ala	Leu	Ala
			245					250						255	
Lys	Ile	Leu	Leu	Asp	Pro	Tyr	Tyr	Arg	Thr	Leu	Glu	Gly	Phe	Gln	Val
		260						265					270		
Leu	Val	Glu	Ser	Asp	Trp	Leu	Asp	Phe	Gly	His	Lys	Phe	Gly	Asp	Arg
		275					280					285			
Cys	Gly	His	Gln	Glu	Asn	Val	Glu	Asp	Gln	Asn	Glu	Gln	Cys	Pro	Val
	290					295					300				
Phe	Leu	Gln	Trp	Leu	Asp	Ser	Val	His	Gln	Leu	Leu	Lys	Gln	Phe	Pro
305				310						315				320	
Cys	Met	Phe	Glu	Phe	Asn	Glu	Ala	Phe	Leu	Val	Lys	Leu	Val	Gln	His
			325					330						335	
Thr	Tyr	Ser	Cys	Leu	Tyr	Gly	Thr	Phe	Leu	Ala	Asn	Asn	Pro	Cys	Glu
		340						345					350		
Arg	Glu	Lys	Arg	Asn	Ile	Tyr	Lys	Arg	Thr	Cys	Ser	Val	Trp	Ala	Leu
	355						360					365			
Leu	Arg	Ala	Gly	Asn	Lys	Asn	Phe	His	Asn	Phe	Leu	Tyr	Thr	Pro	Ser
	370				375						380				
Ser	Asp	Met	Val	Leu	His	Pro	Val	Cys	His	Val	Arg	Ala	Leu	His	Leu
385				390						395				400	
Trp	Thr	Ala	Val	Tyr	Leu	Pro	Ala	Ser	Ser	Pro	Cys	Thr	Leu	Gly	Glu
			405					410						415	
Glu	Asn	Met	Asp	Leu	Tyr	Leu	Ser	Pro	Val	Ala	Gln	Ser	Gln	Glu	Phe
			420					425					430		
Ser	Gly	Arg	Ser	Leu	Asp	Arg	Leu	Pro	Lys	Thr	Arg	Ser	Met	Asp	Asp
	435						440					445			
Leu	Leu	Ser	Ala	Cys	Asp	Thr	Ser	Ser	Pro	Leu	Thr	Arg	Thr	Ser	Ser
	450					455					460				
Asp	Pro	Asn	Leu	Asn	Asn	His	Cys	Gln	Glu	Val	Arg	Val	Gly	Leu	Glu
465				470						475				480	
Pro	Trp	His	Ser	Asn	Pro	Glu	Gly	Ser	Glu	Thr	Ser	Phe	Val	Asp	Ser
				485					490					495	

Gly Val Gly Gly Pro Gln Gln Thr Val Gly Glu Val Gly Leu Pro Pro  
 500 505 510  
 Pro Leu Pro Ser Ser Gln Lys Asp Tyr Leu Ser Asn Lys Pro Phe Lys  
 515 520 525  
 Ser His Lys Ser Cys Ser Pro Ser Tyr Lys Leu Leu Asn Thr Ala Val  
 530 535 540  
 Pro Arg Glu Met Lys Ser Asn Thr Ser Asp Pro Glu Ile Lys Val Leu  
 545 550 555 560  
 Glu Glu Thr Lys Gly Pro Ala Pro Asp Pro Ser Ala Gln Asp Glu Leu  
 565 570 575  
 Gly Arg Thr Leu Asp Gly Ile Gly Glu Pro Pro Glu His Cys Pro Glu  
 580 585 590  
 Thr Glu Ala Val Ser Ala Leu Ser Lys Val Ile Ser Asn Lys Cys Asp  
 595 600 605  
 Gly Val Cys Asn Phe Pro Glu Ser Ser Gln Asn Ser Pro Thr Gly Thr  
 610 615 620  
 Pro Gln Gln Ala Gln Pro Asp Ser Met Leu Gly Val Pro Ser Lys Cys  
 625 630 635 640  
 Val Leu Asp His Ser Leu Ser Thr Val Cys Asn Pro Pro Ser Ala Ala  
 645 650 655  
 Cys Gln Thr Pro Leu Asp Pro Ser Thr Asp Phe Leu Asn Gln Asp Pro  
 660 665 670  
 Ser Gly Ser Val Ala Ser Ile Ser His Gln Glu Gln Leu Ser Ser Val  
 675 680 685  
 Pro Asp Leu Thr His Gly Glu Glu Asp Ile Gly Lys Arg Gly Asn Asn  
 690 695 700  
 Arg Asn Gly Gln Leu Leu Glu Asn Pro Arg Phe Gly Lys Met Pro Leu  
 705 710 715 720  
 Glu Leu Val Arg Lys Pro Ile Ser Gln Ser Gln Ile Ser Glu Phe Ser  
 725 730 735  
 Phe Leu Gly Ser Asn Trp Asp Ser Phe Gln Gly Met Val Thr Ser Phe  
 740 745 750  
 Pro Ser Gly Glu Ala Thr Pro Arg Arg Leu Leu Ser Tyr Gly Cys Cys  
 755 760 765  
 Ser Lys Arg Pro Asn Ser Lys Gln Met Arg Ala Thr Gly Pro Cys Phe  
 770 775 780  
 Gly Gly Gln Trp Ala Gln Arg Glu Gly Val Lys Ser Pro Val Cys Ser  
 785 790 795 800  
 Ser His Ser Asn Gly His Cys Thr Gly Pro Gly Gly Lys Asn Gln Met  
 805 810 815  
 Trp Leu Ser Ser His Pro Lys Gln Val Ser Ser Thr Lys Pro Val Pro  
 820 825 830  
 Leu Asn Cys Pro Ser Pro Val Pro Pro Leu Tyr Leu Asp Asp Asp Gly  
 835 840 845  
 Leu Pro Phe Pro Thr Asp Val Ile Gln His Arg Leu Arg Gln Ile Glu  
 850 855 860  
 Ala Gly Tyr Lys Gln Glu Val Glu Gln Leu Arg Arg Gln Val Arg Glu  
 865 870 875 880  
 Leu Gln Met Arg Leu Asp Ile Arg His Cys Cys Ala Pro Pro Ala Glu  
 885 890 895  
 Pro Pro Met Asp Tyr Glu Asp Asp Phe Thr Cys Leu Lys Glu Ser Asp  
 900 905 910  
 Gly Ser Asp Thr Glu Asp Phe Gly Ser Asp His Ser Glu Asp Cys Leu  
 915 920 925  
 Ser Glu Ala Ser Trp Glu Pro Val Asp Lys Lys Glu Thr Glu Val Thr  
 930 935 940  
 Arg Trp Val Pro Asp His Met Ala Ser His Cys Tyr Asn Cys Asp Cys  
 945 950 955 960  
 Glu Phe Trp Leu Ala Lys Arg Arg His His Cys Arg Asn Cys Gly Asn  
 965 970 975  
 Val Phe Cys Ala Gly Cys Cys His Leu Lys Leu Pro Ile Pro Asp Gln  
 980 985 990  
 Gln Leu Tyr Asp Pro Val Leu Val Cys Asn Ser Cys Tyr Glu His Ile  
 995 1000 1005

Gln Val Ser Arg Ala Arg Glu Leu Met Ser Gln Gln Leu Lys Lys Pro  
 1010 1015 1020  
 Ile Ala Thr Ala Ser Ser \*  
 1025 1030

<210> 1464  
 <211> 558  
 <212> PRT  
 <213> Homo sapiens

<400> 1464  
 Met Thr Phe Phe Ser Ser Val Ala Asp Phe Ile Gly Leu Asp Pro Arg  
 1 5 10 15  
 Ile Ala Ala Trp Leu Ile Asp Pro Ser Asp Ala Thr Pro Ser Phe Glu  
 20 25 30  
 Asp Leu Val Glu Lys Tyr Cys Glu Lys Ser Ile Thr Val Lys Val Asn  
 35 40 45  
 Ser Thr Tyr Gly Asn Ser Ser Arg Asn Ile Val Asn Gln Asn Val Arg  
 50 55 60  
 Glu Asn Leu Lys Thr Leu Tyr Arg Leu Thr Met Asp Leu Cys Ser Lys  
 65 70 75 80  
 Leu Lys Asp Tyr Gly Leu Trp Gln Leu Phe Arg Thr Leu Glu Leu Pro  
 85 90 95  
 Leu Ile Pro Ile Leu Ala Val Met Glu Ser His Ala Ile Gln Val Asn  
 100 105 110  
 Lys Glu Glu Met Glu Lys Thr Ser Ala Leu Leu Gly Ala Arg Leu Lys  
 115 120 125  
 Glu Leu Glu Gln Glu Ala His Phe Val Ala Gly Glu Arg Phe Leu Ile  
 130 135 140  
 Thr Ser Asn Asn Gln Leu Arg Glu Ile Leu Phe Gly Lys Leu Lys Leu  
 145 150 155 160  
 His Leu Leu Ser Gln Arg Asn Ser Leu Pro Arg Thr Gly Leu Gln Lys  
 165 170 175  
 Tyr Pro Ser Thr Val Ser Glu Ala Leu Asn Ala Leu Arg Asp Leu His  
 180 185 190  
 Pro Leu Pro Lys Ile Ile Leu Glu Tyr Arg Gln Val His Lys Ile Lys  
 195 200 205  
 Ser Thr Phe Val Asp Gly Leu Leu Ala Cys Met Lys Lys Gly Ser Ile  
 210 215 220  
 Ser Ser Thr Trp Asn Gln Thr Gly Thr Val Thr Gly Arg Leu Ser Ala  
 225 230 235 240  
 Lys His Pro Asn Ile Gln Gly Ile Ser Lys His Pro Ile Gln Ile Thr  
 245 250 255  
 Thr Pro Lys Asn Phe Lys Gly Lys Glu Asp Lys Ile Leu Thr Ile Ser  
 260 265 270  
 Pro Arg Ala Met Phe Val Ser Ser Lys Gly His Thr Phe Leu Ala Ala  
 275 280 285  
 Asp Phe Ser Gln Ile Glu Leu Arg Ile Leu Thr His Leu Ser Gly Asp  
 290 295 300  
 Pro Glu Leu Leu Lys Leu Phe Gln Glu Ser Glu Arg Asp Asp Val Phe  
 305 310 315 320  
 Ser Thr Leu Thr Ser Gln Trp Lys Asp Val Pro Val Glu Gln Val Thr  
 325 330 335  
 His Ala Asp Arg Glu Gln Thr Lys Lys Val Val Tyr Ala Val Val Tyr  
 340 345 350  
 Gly Ala Gly Lys Glu Arg Leu Ala Ala Cys Leu Gly Val Pro Ile Gln  
 355 360 365  
 Glu Ala Ala Gln Phe Leu Glu Ser Phe Leu Gln Lys Tyr Lys Lys Ile  
 370 375 380  
 Lys Asp Phe Ala Arg Ala Ala Ile Ala Gln Cys His Gln Thr Gly Cys  
 385 390 395 400

Val Val Ser Ile Met Gly Arg Arg Arg Pro Leu Pro Arg Ile His Ala  
 405 410 415  
 His Asp Gln Gln Leu Arg Ala Gln Ala Glu Arg Gln Ala Val Asn Phe  
 420 425 430  
 Val Val Gln Gly Ser Ala Ala Asp Leu Cys Lys Leu Ala Met Ile His  
 435 440 445  
 Val Phe Thr Ala Val Ala Ala Ser His Thr Leu Thr Ala Arg Leu Val  
 450 455 460  
 Ala Gln Ile His Asp Glu Leu Leu Phe Glu Val Glu Asp Pro Gln Ile  
 465 470 475 480  
 Pro Glu Cys Ala Ala Leu Val Arg Arg Thr Met Glu Ser Leu Glu Gln  
 485 490 495  
 Val Pro Leu Lys Val Ser Leu Ser Ala Gly Arg Ser Trp Gly His Leu  
 500 505 510  
 Val Pro Leu Gln Glu Ala Trp Gly Pro Pro Pro Gly Pro Cys Arg Thr  
 515 520 525  
 Glu Ser Pro Ser Asn Ser Leu Ala Ala Pro Gly Ser Pro Ala Ser Thr  
 530 535 540  
 Gln Pro Pro Pro Leu His Phe Ser Pro Ser Phe Cys Leu \*  
 545 550 555 557

&lt;210&gt; 1465

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1465

Met Lys Gly Lys Lys Gly Ile Val Ala Ala Ser Gly Ser Glu Thr Glu  
 1 5 10 15  
 Asp Glu Asp Ser Met Asp Ile Pro Leu Asp Leu Ser Ser Ser Ala Gly  
 20 25 30  
 Ser Gly Lys Arg Arg Arg Arg Gly Asn Leu Pro Lys Glu Ser Val Gln  
 35 40 45  
 Ile Leu Arg Asp Trp Leu Tyr Glu His Arg Tyr Asn Ala Tyr Pro Ser  
 50 55 60  
 Glu Gln Glu Lys Ala Leu Leu Ser Gln Gln Thr His Leu Ser Thr Leu  
 65 70 75 80  
 Gln Val Cys Asn Trp Phe Ile Asn Ala Arg Arg Arg Leu Leu Pro Asp  
 85 90 95  
 Met Leu Arg Lys Asp Gly Lys Asp Pro Asn Gln Phe Thr Ile Ser Arg  
 100 105 110  
 Arg Gly Ala Lys Ile Ser Glu Thr Ser Ser Val Glu Ser Val Met Gly  
 115 120 125  
 Ile Lys Asn Phe Met Pro Ala Leu Glu Glu Thr Pro Phe His Ser Cys  
 130 135 140  
 Thr Ala Gly Pro Asn Pro Thr Leu Gly Arg Pro Leu Ser Pro Lys Pro  
 145 150 155 160  
 Ser Ser Pro Gly Ser Val Leu Ala Arg Pro Ser Val Ile Cys His Thr  
 165 170 175  
 Thr Val Thr Ala Leu Lys Asp Val Pro Phe Ser Leu Cys Gln Ser Val  
 180 185 190  
 Gly Val Gly Gln Asn Thr Asp Ile Gln Gln Ile Ala Ala Lys Asn Phe  
 195 200 205  
 Thr Asp Thr Ser Leu Met Tyr Pro Glu Asp Thr Cys Lys Ser Gly Pro  
 210 215 220  
 Ser Thr Asn Thr Gln Ser Gly Leu Phe Asn Thr Pro Pro Pro Thr Pro  
 225 230 235 240  
 Pro Asp Leu Asn Gln Asp Phe Ser Gly Phe Gln Leu Leu Val Asp Val  
 245 250 255  
 Ala Leu Lys Arg Ala Ala Glu Met Glu Leu Gln Ala Lys Leu Thr Ala  
 260 265 270 272

\*

<210> 1466  
 <211> 344  
 <212> PRT  
 <213> Homo sapiens

<400> 1466  
 Met Leu Ala Thr Arg Leu Ser Arg Pro Leu Ser Arg Leu Pro Gly Lys  
 1 5 10 15  
 Thr Leu Ser Ala Cys Asp Arg Glu Asn Gly Ala Arg Arg Pro Leu Leu  
 20 25 30  
 Leu Gly Ser Thr Ser Phe Ile Pro Ile Gly Arg Arg Thr Tyr Ala Ser  
 35 40 45  
 Ala Ala Glu Pro Val Gly Ser Lys Ala Val Leu Val Thr Gly Cys Asp  
 50 55 60  
 Ser Gly Phe Gly Phe Ser Leu Ala Lys His Leu His Ser Lys Gly Phe  
 65 70 75 80  
 Leu Val Phe Ala Gly Cys Leu Met Lys Asp Lys Gly His Asp Gly Val  
 85 90 95  
 Lys Glu Leu Asp Ser Leu Asn Ser Asp Arg Leu Arg Thr Val Gln Leu  
 100 105 110  
 Asn Val Cys Ser Ser Glu Glu Val Glu Lys Val Val Glu Ile Val Arg  
 115 120 125  
 Ser Ser Leu Lys Asp Pro Glu Lys Gly Met Trp Gly Leu Val Asn Asn  
 130 135 140  
 Ala Gly Ile Ser Thr Phe Gly Glu Val Glu Phe Thr Ser Leu Glu Thr  
 145 150 155 160  
 Tyr Lys Gln Val Ala Glu Val Asn Leu Trp Gly Thr Val Arg Met Thr  
 165 170 175  
 Lys Ser Phe Leu Pro Leu Ile Arg Arg Ala Lys Gly Arg Val Val Asn  
 180 185 190  
 Ile Ser Ser Met Leu Gly Arg Met Ala Asn Pro Ala Arg Ser Pro Tyr  
 195 200 205  
 Cys Ile Thr Lys Phe Gly Val Glu Ala Phe Ser Asp Cys Leu Arg Tyr  
 210 215 220  
 Glu Met Tyr Pro Leu Gly Val Lys Val Ser Val Val Glu Pro Gly Asn  
 225 230 235 240  
 Phe Ile Ala Ala Thr Ser Leu Tyr Ser Pro Glu Ser Ile Gln Ala Ile  
 245 250 255  
 Ala Lys Lys Met Trp Glu Glu Leu Pro Glu Val Val Arg Lys Asp Tyr  
 260 265 270  
 Gly Lys Lys Tyr Phe Asp Glu Lys Ile Ala Lys Met Glu Thr Tyr Cys  
 275 280 285  
 Ser Ser Gly Ser Thr Asp Thr Ser Pro Val Ile Asp Ala Val Thr His  
 290 295 300  
 Ala Leu Thr Ala Thr Thr Pro Tyr Thr Arg Tyr His Pro Met Asp Tyr  
 305 310 315 320  
 Tyr Trp Trp Leu Arg Met Gln Ile Met Thr His Leu Pro Gly Ala Ile  
 325 330 335  
 Ser Asp Met Ile Tyr Ile Arg \*  
 340 343

<210> 1467  
 <211> 1097  
 <212> PRT  
 <213> Homo sapiens



<400> 1467

Met	Met	Pro	Met	Ile	Leu	Thr	Val	Phe	Leu	Ser	Asn	Asn	Glu	Gln	Ile
1				5					10					15	
Leu	Thr	Glu	Val	Pro	Ile	Thr	Pro	Glu	Thr	Thr	Cys	Arg	Asp	Val	Val
			20					25					30		
Glu	Phe	Cys	Lys	Glu	Pro	Gly	Glu	Gly	Ser	Cys	His	Leu	Ala	Glu	Val
		35				40						45			
Trp	Arg	Gly	Asn	Glu	Arg	Pro	Ile	Pro	Phe	Asp	His	Met	Met	Tyr	Glu
	50					55					60				
His	Leu	Gln	Lys	Trp	Gly	Pro	Arg	Arg	Glu	Glu	Val	Lys	Phe	Phe	Leu
	65				70						75				80
Arg	His	Glu	Asp	Ser	Pro	Thr	Glu	Asn	Ser	Glu	Gln	Gly	Gly	Arg	Gln
				85				90						95	
Thr	Gln	Glu	Gln	Arg	Thr	Gln	Arg	Asn	Val	Ile	Asn	Val	Pro	Gly	Glu
			100					105					110		
Lys	Arg	Thr	Glu	Asn	Gly	Val	Gly	Asn	Pro	Arg	Val	Glu	Leu	Thr	Leu
		115					120					125			
Ser	Glu	Leu	Gln	Asp	Met	Ala	Ala	Arg	Gln	Gln	Gln	Gln	Ile	Glu	Asn
	130					135					140				
Gln	Gln	Gln	Met	Leu	Val	Ala	Lys	Glu	Gln	Arg	Leu	His	Phe	Leu	Lys
	145				150					155					160
Gln	Gln	Glu	Arg	Arg	Gln	Gln	Gln	Ser	Ile	Ser	Glu	Asn	Glu	Lys	Leu
				165					170					175	
Gln	Lys	Leu	Lys	Glu	Arg	Val	Glu	Ala	Gln	Glu	Asn	Lys	Leu	Lys	Lys
			180					185					190		
Ile	Arg	Ala	Met	Arg	Gly	Gln	Val	Asp	Tyr	Ser	Lys	Ile	Met	Asn	Gly
	195					200						205			
Asn	Leu	Ser	Ala	Glu	Ile	Glu	Arg	Phe	Ser	Ala	Met	Phe	Gln	Glu	Lys
	210					215					220				
Lys	Gln	Glu	Val	Gln	Thr	Ala	Ile	Leu	Arg	Val	Asp	Gln	Leu	Ser	Gln
	225				230					235					240
Gln	Leu	Glu	Asp	Leu	Lys	Lys	Gly	Lys	Leu	Asn	Gly	Phe	Gln	Ser	Tyr
			245						250					255	
Asn	Gly	Lys	Leu	Thr	Gly	Pro	Ala	Ala	Val	Glu	Leu	Lys	Arg	Leu	Tyr
		260						265					270		
Gln	Glu	Leu	Gln	Ile	Arg	Asn	Gln	Leu	Asn	Gln	Glu	Gln	Asn	Ser	Lys
	275					280						285			
Leu	Gln	Gln	Gln	Lys	Glu	Leu	Leu	Asn	Lys	Arg	Asn	Met	Glu	Val	Ala
	290					295					300				
Met	Met	Asp	Lys	Arg	Ile	Ser	Glu	Leu	Arg	Glu	Arg	Leu	Tyr	Gly	Lys
	305				310					315					320
Lys	Ile	Gln	Ala	Cys	Glu	Lys	Val	Phe	Leu	Asn	Arg	Val	Asn	Gly	Thr
			325						330					335	
Ser	Ser	Pro	Gln	Ser	Pro	Leu	Ser	Thr	Ser	Gly	Arg	Val	Ala	Ala	Val
			340					345					350		
Gly	Pro	Tyr	Ile	Gln	Val	Pro	Ser	Ala	Gly	Ser	Phe	Pro	Val	Leu	Gly
		355				360						365			
Asp	Pro	Ile	Lys	Pro	Gln	Ser	Leu	Ser	Ile	Ala	Ser	Asn	Ala	Ala	His
	370					375					380				
Gly	Arg	Ser	Lys	Ser	Ala	Asn	Asp	Gly	Asn	Trp	Pro	Thr	Leu	Lys	Gln
	385				390					395					400
Asn	Ser	Ser	Ser	Ser	Val	Lys	Pro	Val	Gln	Val	Ala	Gly	Ala	Asp	Trp
			405						410					415	
Lys	Asp	Pro	Ser	Val	Glu	Gly	Ser	Val	Lys	Gln	Gly	Thr	Val	Ser	Ser
			420					425					430		
Gln	Pro	Val	Pro	Phe	Ser	Ala	Leu	Gly	Pro	Thr	Glu	Lys	Pro	Gly	Ile
		435					440					445			
Glu	Ile	Gly	Lys	Val	Pro	Pro	Pro	Ile	Pro	Gly	Val	Gly	Lys	Gln	Leu
	450					455					460				
Pro	Pro	Ser	Tyr	Gly	Thr	Tyr	Pro	Ser	Pro	Thr	Pro	Leu	Gly	Pro	Gly
	465				470					475					480
Ser	Thr	Ser	Ser	Leu	Glu	Arg	Arg	Lys	Glu	Gly	Ser	Leu	Pro	Arg	Pro
				485					490					495	

Ser Ala Gly Leu Pro Ser Arg Gln Arg Pro Thr Leu Leu Pro Ala Thr  
 500 505 510  
 Gly Ser Thr Pro Gln Pro Gly Ser Ser Gln Gln Ile Gln Gln Arg Ile  
 515 520 525  
 Ser Val Pro Pro Ser Pro Thr Tyr Pro Pro Ala Gly Pro Pro Ala Phe  
 530 535 540  
 Pro Ala Gly Asp Ser Lys Pro Glu Leu Pro Leu Thr Val Ala Ile Arg  
 545 550 555 560  
 Pro Phe Leu Ala Asp Lys Gly Ser Arg Pro Gln Ser Pro Arg Lys Gly  
 565 570 575  
 Pro Gln Thr Val Asn Ser Ser Ser Ile Tyr Ser Met Tyr Leu Gln Gln  
 580 585 590  
 Ala Thr Pro Pro Lys Asn Tyr Gln Pro Ala Ala His Ser Ala Leu Asn  
 595 600 605  
 Lys Ser Val Lys Ala Val Tyr Gly Lys Pro Val Leu Pro Ser Gly Ser  
 610 615 620  
 Thr Ser Pro Ser Pro Leu Pro Phe Leu His Gly Ser Leu Ser Thr Gly  
 625 630 635 640  
 Thr Pro Gln Pro Gln Pro Pro Ser Glu Ser Thr Glu Lys Glu Pro Glu  
 645 650 655  
 Gln Asp Gly Pro Ala Ala Pro Ala Asp Gly Ser Thr Val Glu Ser Leu  
 660 665 670  
 Pro Arg Pro Leu Ser Pro Thr Lys Leu Thr Pro Ile Val His Ser Pro  
 675 680 685  
 Leu Arg Tyr Gln Ser Asp Ala Asp Leu Glu Ala Leu Arg Arg Lys Leu  
 690 695 700  
 Ala Asn Ala Pro Arg Pro Leu Lys Lys Arg Ser Ser Ile Thr Glu Pro  
 705 710 715 720  
 Glu Gly Pro Gly Gly Pro Asn Ile Gln Lys Leu Leu Tyr Gln Arg Phe  
 725 730 735  
 Asn Thr Leu Ala Gly Gly Met Glu Gly Thr Pro Phe Tyr Gln Pro Ser  
 740 745 750  
 Pro Ser Gln Asp Phe Met Gly Thr Leu Ala Asp Val Asp Asn Gly Asn  
 755 760 765  
 Thr Asn Ala Asn Gly Asn Leu Glu Glu Leu Pro Pro Ala Gln Pro Thr  
 770 775 780  
 Ala Pro Leu Pro Ala Glu Pro Ala Pro Ser Ser Asp Ala Asn Asp Asn  
 785 790 795 800  
 Glu Leu Pro Ser Pro Glu Pro Glu Glu Leu Ile Cys Pro Gln Thr Thr  
 805 810 815  
 His Gln Thr Ala Glu Pro Ala Glu Asp Asn Asn Asn Val Ala Thr  
 820 825 830  
 Val Pro Thr Thr Glu Gln Ile Pro Ser Pro Val Ala Glu Ala Pro Ser  
 835 840 845  
 Pro Gly Glu Glu Gln Val Pro Pro Ala Pro Leu Pro Pro Ala Ser His  
 850 855 860  
 Pro Pro Ala Thr Ser Thr Asn Lys Arg Thr Asn Leu Lys Lys Pro Asn  
 865 870 875 880  
 Ser Glu Arg Thr Gly His Gly Leu Arg Val Arg Phe Asn Pro Leu Ala  
 885 890 895  
 Leu Leu Leu Asp Ala Ser Leu Glu Gly Glu Phe Asp Leu Val Gln Arg  
 900 905 910  
 Ile Ile Tyr Glu Val Glu Asp Pro Ser Lys Pro Asn Asp Glu Gly Ile  
 915 920 925  
 Thr Pro Leu His Asn Ala Val Cys Ala Gly His His His Ile Val Lys  
 930 935 940  
 Phe Leu Leu Asp Phe Gly Val Asn Val Asn Ala Ala Asp Ser Asp Gly  
 945 950 955 960  
 Trp Thr Pro Leu His Cys Ala Ala Ser Cys Asn Ser Val His Leu Cys  
 965 970 975  
 Lys Gln Leu Val Glu Ser Gly Ala Ala Ile Phe Ala Ser Thr Ile Ser  
 980 985 990  
 Asp Ile Glu Thr Ala Ala Asp Lys Cys Glu Glu Met Glu Glu Gly Tyr  
 995 1000 1005

Ile Gln Cys Ser Gln Phe Leu Tyr Gly Val Gln Glu Lys Leu Gly Val  
 1010 1015 1020  
 Met Asn Lys Gly Val Ala Tyr Ala Leu Trp Asp Tyr Glu Ala Gln Asn  
 1025 1030 1035 1040  
 Ser Asp Glu Leu Ser Phe His Glu Gly Asp Ala Leu Thr Ile Leu Arg  
 1045 1050 1055  
 Arg Lys Asp Glu Ser Glu Thr Glu Trp Trp Trp Ala Arg Leu Gly Asp  
 1060 1065 1070  
 Arg Glu Gly Tyr Val Pro Lys Asn Leu Leu Gly Leu Tyr Pro Arg Ile  
 1075 1080 1085  
 Lys Pro Arg Gln Arg Thr Leu Ala \*  
 1090 1095 1096

<210> 1468  
 <211> 832  
 <212> PRT  
 <213> Homo sapiens

<400> 1468  
 Met His Val Asp Met Asp Cys Phe Phe Val Ser Val Gly Ile Arg Asn  
 1 5 10 15  
 Arg Pro Asp Leu Lys Gly Lys Pro Val Ala Val Thr Ser Asn Arg Gly  
 20 25 30  
 Thr Gly Arg Ala Pro Leu Arg Pro Gly Ala Asn Pro Gln Leu Glu Trp  
 35 40 45  
 Gln Tyr Tyr Gln Asn Lys Ile Leu Lys Gly Lys Ala Asp Ile Pro Asp  
 50 55 60  
 Ser Ser Leu Trp Glu Asn Pro Asp Ser Ala Gln Ala Asn Gly Ile Asp  
 65 70 75 80  
 Ser Val Leu Ser Arg Ala Glu Ile Ala Ser Cys Ser Tyr Glu Ala Arg  
 85 90 95  
 Gln Leu Gly Ile Lys Asn Gly Met Phe Phe Gly His Ala Lys Gln Leu  
 100 105 110  
 Cys Pro Asn Leu Gln Ala Val Pro Tyr Asp Phe His Ala Tyr Lys Glu  
 115 120 125  
 Val Ala Gln Thr Leu Tyr Glu Thr Leu Ala Ser Tyr Thr His Asn Ile  
 130 135 140  
 Glu Ala Val Ser Cys Asp Glu Ala Leu Val Asp Ile Thr Glu Ile Leu  
 145 150 155 160  
 Ala Glu Thr Lys Leu Thr Pro Asp Glu Phe Ala Asn Ala Val Arg Met  
 165 170 175  
 Glu Ile Lys Asp Gln Thr Lys Cys Ala Ala Ser Val Gly Ile Gly Ser  
 180 185 190  
 Asn Ile Leu Leu Ala Arg Met Ala Thr Arg Lys Ala Lys Pro Asp Gly  
 195 200 205  
 Gln Tyr His Leu Lys Pro Glu Val Asp Asp Phe Ile Arg Gly Gln  
 210 215 220  
 Leu Val Thr Asn Leu Pro Gly Val Gly His Ser Met Glu Ser Lys Leu  
 225 230 235 240  
 Ala Ser Leu Gly Ile Lys Thr Cys Gly Asp Leu Gln Tyr Met Thr Met  
 245 250 255  
 Ala Lys Leu Gln Lys Glu Phe Gly Pro Lys Thr Gly Gln Met Leu Tyr  
 260 265 270  
 Arg Phe Cys Arg Gly Leu Asp Asp Arg Pro Val Arg Thr Glu Lys Glu  
 275 280 285  
 Arg Lys Ser Val Ser Ala Glu Ile Asn Tyr Gly Ile Arg Phe Thr Gln  
 290 295 300  
 Pro Lys Glu Ala Glu Ala Phe Leu Leu Ser Leu Ser Glu Glu Ile Gln  
 305 310 315 320  
 Arg Arg Leu Glu Ala Thr Gly Met Lys Gly Lys Arg Leu Thr Leu Lys  
 325 330 335

Ile	Met	Val	Arg	Lys	Pro	Gly	Ala	Pro	Val	Glu	Thr	Ala	Lys	Phe	Gly
		340						345					350		
Gly	His	Gly	Ile	Cys	Asp	Asn	Ile	Ala	Arg	Thr	Val	Thr	Leu	Asp	Gln
		355					360					365			
Ala	Thr	Asp	Asn	Ala	Lys	Ile	Ile	Gly	Lys	Ala	Met	Leu	Asn	Met	Phe
		370				375					380				
His	Thr	Met	Lys	Leu	Asn	Ile	Ser	Asp	Met	Arg	Gly	Val	Gly	Ile	His
		385			390					395					400
Val	Asn	Gln	Leu	Val	Pro	Thr	Asn	Leu	Asn	Pro	Ser	Thr	Cys	Pro	Ser
			405						410					415	
Arg	Pro	Ser	Val	Gln	Ser	Ser	His	Phe	Pro	Ser	Gly	Ser	Tyr	Ser	Val
			420					425					430		
Arg	Asp	Val	Phe	Gln	Val	Gln	Lys	Ala	Lys	Lys	Ser	Thr	Glu	Glu	Glu
		435					440						445		
His	Lys	Glu	Val	Phe	Arg	Ala	Ala	Val	Asp	Leu	Glu	Ile	Ser	Ser	Ala
		450				455					460				
Ser	Arg	Thr	Cys	Thr	Phe	Leu	Pro	Pro	Phe	Pro	Ala	His	Leu	Pro	Thr
				470						475					480
Ser	Pro	Asp	Thr	Asn	Lys	Ala	Glu	Ser	Ser	Gly	Lys	Trp	Asn	Gly	Leu
				485					490					495	
His	Thr	Pro	Val	Ser	Val	Gln	Ser	Arg	Leu	Asn	Leu	Ser	Ile	Glu	Val
			500					505					510		
Pro	Ser	Pro	Ser	Gln	Leu	Asp	Gln	Ser	Val	Leu	Glu	Ala	Leu	Pro	Pro
		515					520					525			
Asp	Leu	Arg	Glu	Gln	Val	Glu	Gln	Val	Cys	Ala	Val	Gln	Gln	Ala	Glu
		530				535					540				
Ser	His	Gly	Asp	Lys	Lys	Lys	Glu	Pro	Val	Asn	Gly	Cys	Asn	Thr	Gly
				550						555					560
Ile	Leu	Pro	Gln	Pro	Val	Gly	Thr	Val	Leu	Gln	Ile	Pro	Glu	Pro	
				565					570					575	
Gln	Glu	Ser	Asn	Ser	Asp	Ala	Gly	Ile	Asn	Leu	Ile	Ala	Leu	Pro	Ala
			580				585					590			
Phe	Ser	Gln	Val	Asp	Pro	Glu	Val	Phe	Ala	Ala	Leu	Pro	Ala	Glu	Leu
		595					600					605			
Gln	Arg	Glu	Leu	Lys	Ala	Ala	Tyr	Asp	Gln	Arg	Gln	Arg	Gln	Gly	Glu
		610				615					620				
Asn	Ser	Thr	His	Gln	Gln	Ser	Ala	Ser	Ala	Ser	Val	Pro	Lys	Asn	Pro
				630						635					640
Leu	Leu	His	Leu	Lys	Ala	Ala	Val	Lys	Glu	Lys	Lys	Arg	Asn	Lys	Lys
				645					650				655		
Lys	Lys	Thr	Ile	Gly	Ser	Pro	Lys	Arg	Ile	Gln	Ser	Pro	Leu	Asn	Asn
			660					665					670		
Lys	Leu	Leu	Asn	Ser	Pro	Ala	Lys	Thr	Leu	Pro	Gly	Ala	Cys	Gly	Ser
		675					680					685			
Pro	Gln	Lys	Leu	Ile	Asp	Gly	Phe	Leu	Lys	His	Glu	Gly	Pro	Pro	Ala
		690				695					700				
Glu	Lys	Pro	Leu	Glu	Glu	Leu	Ser	Ala	Ser	Thr	Ser	Gly	Val	Pro	Gly
				710						715					720
Leu	Ser	Ser	Leu	Gln	Ser	Asp	Pro	Ala	Gly	Cys	Val	Arg	Pro	Pro	Ala
				725					730					735	
Pro	Asn	Leu	Ala	Gly	Ala	Val	Glu	Phe	Asn	Asp	Val	Lys	Thr	Leu	Leu
			740					745					750		
Arg	Glu	Trp	Ile	Thr	Thr	Ile	Ser	Asp	Pro	Met	Glu	Glu	Asp	Ile	Leu
			755				760					765			
Gln	Val	Val	Lys	Tyr	Cys	Thr	Asp	Leu	Ile	Glu	Glu	Lys	Asp	Leu	Glu
			770			775					780				
Lys	Leu	Asp	Leu	Val	Ile	Lys	Tyr	Met	Lys	Arg	Leu	Met	Gln	Gln	Ser
				790						795					800
Val	Glu	Ser	Val	Trp	Asn	Met	Ala	Phe	Asp	Phe	Ile	Leu	Asp	Asn	Val
				805					810					815	
Gln	Val	Val	Leu	Gln	Gln	Thr	Tyr	Gly	Ser	Thr	Leu	Lys	Val	Thr	*
			820					825					830	831	

<210> 1469  
 <211> 1203  
 <212> PRT  
 <213> Homo sapiens

<400> 1469  
 Met Asn Thr Lys Asp Thr Thr Glu Val Ala Glu Asn Ser His His Leu  
 1 5 10 15  
 Lys Ile Phe Leu Pro Lys Lys Leu Leu Glu Cys Leu Pro Arg Cys Pro  
 20 25 30  
 Leu Leu Pro Pro Glu Arg Leu Arg Trp Asn Thr Asn Glu Glu Ile Ala  
 35 40 45  
 Ser Tyr Leu Ile Thr Phe Glu Lys His Asp Glu Trp Leu Ser Cys Ala  
 50 55 60  
 Pro Lys Thr Arg Pro Gln Asn Gly Ser Ile Ile Leu Tyr Asn Arg Lys  
 65 70 75 80  
 Lys Val Lys Tyr Arg Lys Asp Gly Tyr Leu Trp Lys Lys Arg Lys Asp  
 85 90 95  
 Gly Lys Thr Thr Arg Glu Asp His Met Lys Leu Lys Val Gln Gly Met  
 100 105 110  
 Glu Cys Leu Tyr Gly Cys Tyr Val His Ser Ser Ile Val Pro Thr Phe  
 115 120 125  
 His Arg Arg Cys Tyr Trp Leu Leu Gln Asn Pro Asp Ile Val Leu Val  
 130 135 140  
 His Tyr Leu Asn Val Pro Ala Leu Glu Asp Cys Gly Lys Gly Cys Ser  
 145 150 155 160  
 Pro Ile Phe Cys Ser Ile Ser Ser Asp Arg Arg Glu Trp Leu Lys Trp  
 165 170 175  
 Ser Arg Glu Glu Leu Leu Gly Gln Leu Lys Pro Met Phe His Gly Ile  
 180 185 190  
 Lys Trp Ser Cys Gly Asn Gly Thr Glu Glu Phe Ser Val Glu His Leu  
 195 200 205  
 Val Gln Gln Ile Leu Asp Thr His Pro Thr Lys Pro Ala Pro Arg Thr  
 210 215 220  
 His Ala Cys Leu Cys Ser Gly Gly Leu Gly Ser Gly Ser Leu Thr His  
 225 230 235 240  
 Lys Cys Ser Ser Thr Lys His Arg Ile Ile Ser Pro Lys Val Glu Pro  
 245 250 255  
 Arg Ala Leu Thr Leu Thr Ser Ile Pro His Pro His Pro Pro Glu Pro  
 260 265 270  
 Pro Pro Leu Ile Ala Pro Leu Pro Pro Glu Leu Pro Lys Ala His Thr  
 275 280 285  
 Ser Pro Ser Ser Ser Ser Ser Ser Ser Ser Ser Gly Phe Ala Glu Pro  
 290 295 300  
 Leu Glu Ile Arg Pro Ser Pro Pro Thr Ser Arg Gly Gly Ser Ser Arg  
 305 310 315 320  
 Gly Gly Thr Ala Ile Leu Leu Leu Thr Gly Leu Glu Gln Arg Ala Gly  
 325 330 335  
 Gly Leu Thr Pro Thr Arg His Leu Ala Pro Gln Ala Asp Pro Arg Pro  
 340 345 350  
 Ser Met Ser Leu Ala Val Val Val Gly Thr Glu Pro Ser Ala Pro Pro  
 355 360 365  
 Ala Pro Pro Ser Pro Ala Phe Asp Pro Asp Arg Phe Leu Asn Ser Pro  
 370 375 380  
 Gln Arg Gly Gln Thr Tyr Gly Gly Gly Gln Gly Val Ser Pro Asp Phe  
 385 390 395 400  
 Pro Glu Ala Glu Ala Ala His Thr Pro Cys Ser Ala Leu Glu Pro Ala  
 405 410 415  
 Ala Ala Leu Glu Pro Gln Ala Ala Ala Arg Gly Pro Pro Pro Gln Ser  
 420 425 430  
 Val Ala Gly Arg Arg Gly Asn Cys Phe Phe Ile Gln Asp Asp Asp  
 435 440 445

Ser Gly Glu Glu Leu Lys Gly His Gly Ala Ala Pro Pro Ile Pro Ser  
 450 455 460  
 Pro Pro Pro Ser Pro Pro Pro Ser Pro Ala Pro Leu Glu Pro Ser Ser  
 465 470 475 480  
 Arg Val Gly Arg Gly Glu Ala Leu Phe Gly Gly Pro Val Gly Ala Ser  
 485 490 495  
 Glu Leu Glu Pro Phe Ser Leu Ser Ser Phe Pro Asp Leu Met Gly Glu  
 500 505 510  
 Leu Ile Ser Asp Glu Ala Pro Ser Ile Pro Ala Pro Thr Pro Gln Leu  
 515 520 525  
 Ser Pro Ala Leu Ser Thr Ile Thr Asp Phe Ser Pro Glu Trp Ser Tyr  
 530 535 540  
 Pro Glu Gly Gly Val Lys Val Leu Ile Thr Gly Pro Trp Thr Glu Ala  
 545 550 555 560  
 Ala Glu His Tyr Ser Cys Val Phe Asp His Ile Ala Val Pro Ala Ser  
 565 570 575  
 Leu Val Gln Pro Gly Val Leu Arg Cys Tyr Cys Pro Ala His Glu Val  
 580 585 590  
 Gly Leu Val Ser Leu Gln Val Ala Gly Arg Glu Gly Pro Leu Ser Ala  
 595 600 605  
 Ser Val Leu Phe Glu Tyr Arg Ala Arg Arg Phe Leu Ser Leu Pro Ser  
 610 615 620  
 Thr Gln Leu Asp Trp Leu Ser Leu Asp Asp Asn Gln Phe Arg Met Ser  
 625 630 635 640  
 Ile Leu Glu Arg Leu Glu Gln Met Glu Lys Arg Met Ala Glu Ile Ala  
 645 650 655  
 Ala Ala Gly Gln Val Pro Cys Gln Gly Pro Asp Ala Pro Pro Val Gln  
 660 665 670  
 Asp Glu Gly Gln Gly Pro Gly Phe Glu Ala Arg Val Val Val Leu Val  
 675 680 685  
 Glu Ser Met Ile Pro Arg Ser Thr Trp Lys Gly Pro Glu Arg Leu Ala  
 690 695 700  
 His Gly Ser Pro Phe Arg Gly Met Ser Leu Leu His Leu Ala Ala Ala  
 705 710 715 720  
 Gln Gly Tyr Ala Arg Leu Ile Glu Thr Leu Ser Gln Trp Arg Ser Val  
 725 730 735  
 Glu Thr Gly Ser Leu Asp Leu Glu Gln Glu Val Asp Pro Leu Asn Val  
 740 745 750  
 Asp His Phe Ser Cys Thr Pro Leu Met Trp Ala Cys Ala Leu Gly His  
 755 760 765  
 Leu Glu Ala Ala Val Leu Leu Phe Arg Trp Asn Arg Gln Ala Leu Ser  
 770 775 780  
 Ile Pro Asp Ser Leu Gly Arg Leu Pro Leu Ser Val Ala His Ser Arg  
 785 790 795 800  
 Gly His Val Arg Leu Ala Arg Cys Leu Glu Glu Leu Gln Arg Gln Glu  
 805 810 815  
 Pro Ser Val Glu Pro Pro Phe Ala Leu Ser Pro Pro Ser Ser Ser Pro  
 820 825 830  
 Asp Thr Gly Leu Ser Ser Val Ser Ser Pro Ser Glu Leu Ser Asp Gly  
 835 840 845  
 Thr Phe Ser Val Thr Ser Ala Tyr Ser Ser Ala Pro Asp Gly Ser Pro  
 850 855 860  
 Pro Pro Ala Pro Leu Pro Ala Ser Glu Met Thr Met Glu Asp Met Ala  
 865 870 875 880  
 Pro Gly Gln Leu Ser Ser Gly Val Pro Glu Ala Pro Leu Leu Leu Met  
 885 890 895  
 Asp Tyr Glu Ala Thr Asn Ser Lys Gly Pro Leu Ser Ser Leu Pro Ala  
 900 905 910  
 Leu Pro Pro Ala Ser Asp Asp Gly Ala Ala Pro Glu Asp Ala Asp Ser  
 915 920 925  
 Pro Gln Ala Val Asp Val Ile Pro Val Asp Met Ile Ser Leu Ala Lys  
 930 935 940  
 Gln Ile Ile Glu Ala Thr Pro Glu Arg Ile Lys Arg Glu Asp Phe Val  
 945 950 955 960

Gly Leu Pro Glu Ala Gly Ala Ser Met Arg Glu Arg Thr Gly Ala Val  
                           965                          970                          975  
 Gly Leu Ser Glu Thr Met Ser Trp Leu Ala Ser Tyr Leu Glu Asn Val  
                           980                          985                          990  
 Asp His Phe Pro Ser Ser Thr Pro Pro Ser Glu Leu Pro Phe Glu Arg  
                           995                          1000                          1005  
 Gly Arg Leu Ala Val Pro Ser Ala Pro Ser Trp Ala Glu Phe Leu Ser  
                           1010                          1015                          1020  
 Ala Ser Thr Ser Gly Lys Met Glu Ser Asp Phe Ala Leu Leu Thr Leu  
 1025                          1030                          1035                          1040  
 Ser Asp His Glu Gln Arg Glu Leu Tyr Glu Ala Ala Arg Val Ile Gln  
                           1045                          1050                          1055  
 Thr Ala Phe Arg Lys Tyr Lys Gly Arg Arg Leu Lys Glu Gln Gln Glu  
                           1060                          1065                          1070  
 Val Ala Ala Val Ile Gln Arg Cys Tyr Arg Lys Tyr Lys Gln Leu  
                           1075                          1080                          1085  
 Thr Trp Ile Ala Leu Lys Phe Ala Leu Tyr Lys Lys Met Thr Gln Ala  
                           1090                          1095                          1100  
 Ala Ile Leu Ile Gln Ser Lys Phe Arg Ser Tyr Tyr Glu Gln Lys Arg  
 1105                          1110                          1115                          1120  
 Phe Gln Gln Ser Arg Arg Ala Ala Val Leu Ile Gln Gln His Tyr Arg  
                           1125                          1130                          1135  
 Ser Tyr Arg Arg Arg Pro Gly Pro Pro His Arg Thr Ser Ala Thr Leu  
                           1140                          1145                          1150  
 Pro Ala Arg Asn Lys Gly Ser Phe Leu Thr Lys Lys Gln Asp Gln Ala  
                           1155                          1160                          1165  
 Ala Arg Lys Ile Met Arg Phe Leu Arg Arg Cys Arg His Arg Met Arg  
                           1170                          1175                          1180  
 Glu Leu Lys Gln Asn Gln Glu Leu Glu Gly Leu Pro Gln Pro Gly Leu  
 1185                          1190                          1195                          1200  
 Ala Thr \*  
 1202

&lt;210&gt; 1470

&lt;211&gt; 697

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1470

Met Lys Ala Pro Ile Pro His Leu Ile Leu Leu Tyr Ala Thr Phe Thr  
   1                          5                          10                          15  
 Gln Ser Leu Lys Val Val Thr Lys Arg Gly Ser Ala Asp Gly Cys Thr  
                           20                          25                          30  
 Asp Trp Ser Ile Asp Ile Lys Lys Tyr Gln Val Leu Val Gly Glu Pro  
                           35                          40                          45  
 Val Arg Ile Lys Cys Ala Leu Phe Tyr Gly Tyr Ile Arg Thr Asn Tyr  
                           50                          55                          60  
 Ser Leu Ala Gln Ser Ala Gly Leu Ser Leu Met Trp Tyr Lys Ser Ser  
                           65                          70                          75                          80  
 Gly Pro Gly Asp Phe Glu Glu Pro Ile Ala Phe Asp Gly Ser Arg Met  
                           85                          90                          95  
 Ser Lys Glu Glu Asp Ser Ile Trp Phe Arg Pro Thr Leu Leu Gln Asp  
                           100                          105                          110  
 Ser Gly Leu Tyr Ala Cys Val Ile Arg Asn Ser Thr Tyr Cys Met Lys  
                           115                          120                          125  
 Val Ser Ile Ser Leu Thr Val Gly Glu Asn Asp Thr Gly Leu Cys Tyr  
                           130                          135                          140  
 Asn Ser Lys Met Lys Tyr Phe Glu Lys Ala Glu Leu Ser Lys Ser Lys  
                           145                          150                          155                          160  
 Glu Ile Ser Cys Arg Asp Ile Glu Asp Phe Leu Leu Pro Thr Arg Glu  
                           165                          170                          175

Pro Glu Ile Leu Trp Tyr Lys Glu Cys Arg Thr Lys Thr Trp Arg Pro  
 180 185 190  
 Ser Ile Val Phe Lys Arg Asp Thr Leu Leu Ile Arg Glu Val Arg Glu  
 195 200 205  
 Asp Asp Ile Gly Asn Tyr Thr Cys Glu Leu Lys Tyr Gly Gly Phe Val  
 210 215 220  
 Val Arg Arg Thr Thr Glu Leu Thr Val Thr Ala Pro Leu Thr Asp Lys  
 225 230 235 240  
 Pro Pro Lys Leu Leu Tyr Pro Met Glu Ser Lys Leu Thr Ile Gln Glu  
 245 250 255  
 Thr Gln Leu Gly Asp Ser Ala Asn Leu Thr Cys Arg Ala Phe Phe Gly  
 260 265 270  
 Tyr Ser Gly Asp Val Ser Pro Leu Ile Tyr Trp Met Lys Gly Glu Lys  
 275 280 285  
 Phe Ile Glu Asp Leu Asp Glu Asn Arg Val Trp Glu Ser Asp Ile Arg  
 290 295 300  
 Ile Leu Lys Glu His Leu Gly Glu Gln Glu Val Ser Ile Ser Leu Ile  
 305 310 315 320  
 Val Asp Ser Val Glu Glu Gly Asp Leu Gly Asn Tyr Ser Cys Tyr Val  
 325 330 335  
 Glu Asn Gly Asn Gly Arg Arg His Ala Ser Val Leu Leu His Lys Arg  
 340 345 350  
 Glu Leu Met Tyr Thr Val Glu Leu Ala Gly Gly Leu Gly Ala Ile Leu  
 355 360 365  
 Leu Leu Leu Val Cys Leu Val Thr Ile Tyr Lys Cys Tyr Lys Ile Glu  
 370 375 380  
 Ile Met Leu Phe Tyr Arg Asn His Phe Gly Ala Glu Glu Leu Asp Gly  
 385 390 395 400  
 Asp Asn Lys Asp Tyr Asp Ala Tyr Leu Ser Tyr Thr Lys Val Asp Pro  
 405 410 415  
 Asp Gln Trp Asn Gln Glu Thr Gly Glu Glu Glu Arg Phe Ala Leu Glu  
 420 425 430  
 Ile Leu Pro Asp Met Leu Glu Lys His Tyr Gly Tyr Lys Leu Phe Ile  
 435 440 445  
 Pro Asp Arg Asp Leu Ile Pro Thr Gly Thr Tyr Ile Glu Asp Val Ala  
 450 455 460  
 Arg Cys Val Asp Gln Ser Lys Arg Leu Ile Ile Val Met Thr Pro Asn  
 465 470 475 480  
 Tyr Val Val Arg Arg Gly Trp Ser Ile Phe Glu Leu Glu Thr Arg Leu  
 485 490 495  
 Arg Asn Met Leu Val Thr Gly Glu Ile Lys Val Ile Leu Ile Glu Cys  
 500 505 510  
 Ser Glu Leu Arg Gly Ile Met Asn Tyr Gln Glu Val Glu Ala Leu Lys  
 515 520 525  
 His Thr Ile Lys Leu Leu Thr Val Ile Lys Trp His Gly Pro Lys Cys  
 530 535 540  
 Asn Lys Leu Asn Ser Lys Phe Trp Lys Arg Leu Gln Tyr Glu Met Pro  
 545 550 555 560  
 Phe Lys Arg Ile Glu Pro Ile Thr His Glu Gln Ala Leu Asp Val Ser  
 565 570 575  
 Glu Gln Gly Pro Phe Gly Glu Leu Gln Thr Val Ser Ala Ile Ser Met  
 580 585 590  
 Ala Ala Ala Thr Ser Thr Ala Leu Ala Thr Ala His Pro Asp Leu Arg  
 595 600 605  
 Ser Thr Phe His Asn Thr Tyr His Ser Gln Met Arg Gln Lys His Tyr  
 610 615 620  
 Tyr Arg Ser Tyr Glu Tyr Asp Val Pro Pro Thr Gly Thr Leu Pro Leu  
 625 630 635 640  
 Thr Ser Ile Gly Asn Gln His Thr Tyr Cys Asn Ile Pro Met Thr Leu  
 645 650 655  
 Ile Asn Gly Gln Arg Pro Gln Thr Lys Ser Ser Arg Glu Gln Asn Pro  
 660 665 670  
 Asp Glu Ala His Thr Asn Ser Ala Ile Leu Pro Leu Leu Pro Arg Glu  
 675 680 685



Thr Ser Ile Ser Ser Val Ile Trp \*  
690 695 696

<210> 1471  
<211> 559  
<212> PRT  
<213> Homo sapiens

<400> 1471  
Met Ala Lys Lys Val Ala Val Ile Gly Ala Gly Val Ser Gly Leu Ser  
1 5 10 15  
Ser Ile Lys Cys Val Asp Glu Asp Leu Glu Pro Thr Cys Phe Glu  
20 25 30  
Arg Ser Asp Asp Ile Gly Gly Leu Trp Lys Phe Thr Glu Ser Ser Lys  
35 40 45  
Asp Gly Met Thr Arg Val Tyr Lys Ser Leu Val Thr Asn Val Cys Lys  
50 55 60  
Glu Met Ser Cys Tyr Ser Asp Phe Pro Phe His Glu Asp Tyr Pro Asn  
65 70 75 80  
Phe Met Asn His Glu Lys Phe Trp Asp Tyr Leu Gln Glu Phe Ala Glu  
85 90 95  
His Phe Asp Leu Leu Lys Tyr Ile Gln Phe Lys Thr Thr Val Cys Ser  
100 105 110  
Ile Thr Lys Arg Pro Asp Phe Ser Glu Thr Gly Gln Trp Asp Val Val  
115 120 125  
Thr Glu Thr Glu Gly Lys Gln Asn Arg Ala Val Phe Asp Ala Val Met  
130 135 140  
Val Cys Thr Gly His Phe Leu Asn Pro His Leu Pro Leu Glu Ala Phe  
145 150 155 160  
Pro Gly Ile His Lys Phe Lys Gly Gln Ile Leu His Ser Gln Glu Tyr  
165 170 175  
Lys Ile Pro Glu Gly Phe Gln Gly Lys Arg Val Leu Val Ile Gly Leu  
180 185 190  
Gly Asn Thr Gly Gly Asp Ile Ala Val Glu Leu Ser Arg Thr Ala Ala  
195 200 205  
Gln Val Leu Leu Ser Thr Arg Thr Gly Thr Trp Val Leu Gly Arg Ser  
210 215 220  
Ser Asp Trp Gly Tyr Pro Tyr Asn Met Met Val Thr Arg Arg Cys Cys  
225 230 235 240  
Ser Phe Ile Ala Gln Val Leu Pro Ser Arg Phe Leu Asn Trp Ile Gln  
245 250 255  
Glu Arg Lys Leu Asn Lys Arg Phe Asn His Glu Asp Tyr Gly Leu Ser  
260 265 270  
Ile Thr Lys Gly Lys Lys Ala Lys Phe Ile Val Asn Asp Glu Leu Pro  
275 280 285  
Asn Cys Ile Leu Cys Gly Ala Ile Thr Met Lys Thr Ser Val Ile Glu  
290 295 300  
Phe Thr Glu Thr Ser Ala Val Phe Glu Asp Gly Thr Val Glu Glu Asn  
305 310 315 320  
Ile Asp Val Val Ile Phe Thr Thr Gly Tyr Thr Phe Ser Phe Pro Phe  
325 330 335  
Phe Glu Glu Pro Leu Lys Ser Leu Cys Thr Lys Lys Ile Phe Leu Tyr  
340 345 350  
Lys Gln Val Phe Pro Leu Asn Leu Glu Arg Ala Thr Leu Ala Ile Ile  
355 360 365  
Gly Leu Ile Gly Leu Lys Gly Ser Ile Leu Ser Gly Thr Glu Leu Gln  
370 375 380  
Ala Arg Trp Val Thr Arg Val Phe Lys Gly Leu Cys Lys Ile Pro Pro  
385 390 395 400  
Ser Gln Lys Leu Met Met Glu Ala Thr Glu Lys Glu Gln Leu Ile Lys  
405 410 415

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Arg Gly Val Phe Lys Asp Thr Ser Lys Asp Lys Phe Asp Tyr Ile Ala
      420      425      430
Tyr Met Asp Asp Ile Ala Ala Cys Ile Gly Thr Lys Pro Ser Ile Pro
      435      440      445
Leu Leu Phe Leu Lys Asp Pro Arg Leu Ala Trp Glu Val Phe Phe Gly
      450      455      460
Pro Cys Thr Pro Tyr Gln Tyr Arg Leu Met Gly Pro Gly Lys Trp Asp
465      470      475      480
Gly Ala Arg Asn Ala Ile Leu Thr Gln Trp Asp Arg Thr Leu Lys Pro
      485      490      495
Leu Lys Thr Arg Ile Val Pro Asp Ser Ser Lys Pro Ala Ser Met Ser
      500      505      510
His Tyr Leu Lys Ala Trp Gly Ala Pro Val Leu Leu Ala Ser Leu Leu
      515      520      525
Leu Ile Cys Lys Ser Ser Leu Phe Leu Lys Leu Val Arg Asp Lys Leu
      530      535      540
Gln Asp Arg Met Ser Pro Tyr Leu Val Ser Leu Trp Arg Gly *
545      550      555      558

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<210> 1472
<211> 1135
<212> PRT
<213> Homo sapiens

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<400> 1472
Met Ala Gly Ile Ser Gln Asn Ala Lys Thr Gly Asp Leu Pro Ala Phe
  1      5      10      15
Gly Glu Cys Val Gly Ile Ala Ser Lys Ala Leu Cys Gly Leu Thr Glu
      20      25      30
Ala Ala Ala Gln Ala Ala Tyr Leu Val Gly Ile Phe Asp Pro Asn Ser
      35      40      45
Gln Ala Gly His Gln Gly Leu Val Asp Pro Ile Gln Phe Ala Arg Ala
      50      55      60
Asn Gln Ala Ile Gln Met Ala Cys Gln Asn Leu Val Asp Pro Gly Ser
      65      70      75      80
Ser Pro Ser Gln Val Leu Ser Ala Ala Thr Ile Val Ala Lys His Thr
      85      90      95
Ser Ala Leu Cys Asn Ala Cys Arg Ile Ala Ser Ser Lys Thr Ala Asn
      100      105      110
Pro Val Ala Lys Arg His Phe Val Gln Ser Ala Lys Glu Val Ala Asn
      115      120      125
Ser Thr Ala Asn Leu Val Lys Thr Ile Lys Ala Leu Asp Gly Asp Phe
      130      135      140
Ser Glu Asp Asn Arg Asn Lys Cys Arg Ile Ala Thr Ala Pro Leu Ile
145      150      155      160
Glu Ala Val Glu Asn Leu Thr Ala Phe Ala Ser Asn Pro Glu Phe Val
      165      170      175
Ser Ile Pro Ala Gln Ile Ser Ser Glu Gly Ser Gln Ala Gln Glu Pro
      180      185      190
Ile Leu Val Ser Ala Lys Thr Met Leu Glu Ser Ser Ser Tyr Leu Ile
      195      200      205
Arg Thr Ala Arg Ser Leu Ala Ile Asn Pro Lys Asp Pro Pro Thr Trp
      210      215      220
Ser Val Leu Ala Gly His Ser His Thr Val Ser Asp Ser Ile Lys Ser
225      230      235      240
Leu Ile Thr Ser Ile Arg Asp Lys Ala Pro Gly Gln Arg Glu Cys Asp
      245      250      255
Tyr Ser Ile Asp Gly Ile Asn Arg Cys Ile Arg Asp Ile Glu Gln Ala
      260      265      270
Ser Leu Ala Ala Val Ser Gln Ser Leu Ala Thr Arg Asp Asp Ile Ser
275      280      285

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Val	Glu	Ala	Leu	Gln	Glu	Gln	Leu	Thr	Ser	Val	Val	Gln	Glu	Ile	Gly
290					295					300					
His	Leu	Ile	Asp	Pro	Ile	Ala	Thr	Ala	Ala	Arg	Gly	Glu	Ala	Ala	Gln
305					310					315					320
Leu	Gly	His	Lys	Val	Thr	Gln	Leu	Ala	Ser	Tyr	Phe	Glu	Pro	Leu	Ile
				325					330					335	
Leu	Ala	Ala	Val	Gly	Val	Ala	Ser	Lys	Ile	Leu	Asp	His	Gln	Gln	Gln
			340					345					350		
Met	Thr	Val	Leu	Asp	Gln	Thr	Lys	Thr	Leu	Ala	Glu	Ser	Ala	Leu	Gln
		355					360					365			
Met	Leu	Tyr	Ala	Ala	Lys	Glu	Gly	Gly	Gly	Asn	Pro	Lys	Ala	Gln	His
370						375					380				
Thr	His	Asp	Ala	Ile	Thr	Glu	Ala	Ala	Gln	Leu	Met	Lys	Glu	Ala	Val
385					390					395					400
Asp	Asp	Ile	Met	Val	Thr	Leu	Asn	Glu	Ala	Ala	Ser	Glu	Val	Gly	Leu
				405					410					415	
Val	Gly	Gly	Met	Val	Asp	Ala	Ile	Ala	Glu	Ala	Met	Ser	Lys	Leu	Asp
			420					425					430		
Glu	Gly	Thr	Pro	Pro	Glu	Pro	Lys	Gly	Thr	Phe	Val	Asp	Tyr	Gln	Thr
		435					440					445			
Thr	Val	Val	Lys	Tyr	Ser	Lys	Ser	Ile	Ala	Val	Thr	Ala	Gln	Glu	Met
450						455					460				
Met	Thr	Lys	Ser	Val	Thr	Asn	Pro	Glu	Glu	Leu	Gly	Gly	Leu	Ala	Ser
465					470					475					480
Gln	Met	Thr	Ser	Asp	Tyr	Gly	His	Leu	Ala	Phe	Gln	Gly	Gln	Met	Ala
				485					490					495	
Ala	Ala	Thr	Ala	Glu	Pro	Glu	Glu	Ile	Gly	Phe	Gln	Ile	Arg	Thr	Arg
			500					505					510		
Val	Gln	Asp	Leu	Gly	His	Gly	Cys	Ile	Phe	Leu	Val	Gln	Lys	Ala	Gly
		515					520					525			
Ala	Leu	Gln	Val	Cys	Pro	Thr	Asp	Ser	Tyr	Thr	Lys	Arg	Glu	Leu	Ile
530						535					540				
Glu	Cys	Ala	Arg	Ala	Val	Thr	Glu	Lys	Val	Ser	Leu	Val	Leu	Ser	Ala
545					550					555					560
Leu	Gln	Ala	Gly	Asn	Lys	Gly	Thr	Gln	Ala	Cys	Ile	Thr	Ala	Ala	Thr
				565					570					575	
Ala	Val	Ser	Gly	Ile	Ile	Ala	Asp	Leu	Asp	Thr	Thr	Ile	Met	Phe	Ala
			580					585					590		
Thr	Ala	Gly	Thr	Leu	Asn	Ala	Glu	Asn	Ser	Glu	Thr	Phe	Ala	Asp	His
		595				600						605			
Arg	Glu	Asn	Ile	Leu	Lys	Thr	Ala	Lys	Ala	Leu	Val	Glu	Asp	Thr	Lys
610						615					620				
Leu	Leu	Val	Ser	Gly	Ala	Ala	Ser	Thr	Pro	Asp	Lys	Leu	Ala	Gln	Ala
625					630					635					640
Ala	Gln	Ser	Ser	Ala	Ala	Thr	Ile	Thr	Gln	Leu	Ala	Glu	Val	Val	Lys
				645					650					655	
Leu	Gly	Ala	Ala	Ser	Leu	Gly	Ser	Asp	Asp	Pro	Glu	Thr	Gln	Val	Val
			660					665					670		
Leu	Ile	Asn	Ala	Ile	Lys	Asp	Val	Ala	Lys	Ala	Leu	Ser	Asp	Leu	Ile
		675					680					685			
Ser	Ala	Thr	Lys	Gly	Ala	Ala	Ser	Lys	Pro	Val	Asp	Asp	Pro	Ser	Met
690						695					700				
Tyr	Gln	Leu	Lys	Gly	Ala	Ala	Lys	Val	Met	Val	Thr	Asn	Val	Thr	Ser
705					710					715					720
Leu	Leu	Lys	Thr	Val	Lys	Ala	Val	Glu	Asp	Glu	Ala	Thr	Arg	Gly	Thr
				725					730					735	
Arg	Ala	Leu	Glu	Ala	Thr	Ile	Glu	Cys	Ile	Lys	Gln	Glu	Leu	Thr	Val
			740					745					750		
Phe	Gln	Ser	Lys	Asp	Val	Pro	Glu	Lys	Thr	Ser	Ser	Pro	Glu	Glu	Ser
			755				760					765			
Ile	Arg	Met	Thr	Lys	Gly	Ile	Thr	Met	Ala	Thr	Ala	Lys	Ala	Val	Ala
770						775					780				
Ala	Gly	Asn	Ser	Cys	Arg	Gln	Glu	Asp	Val	Ile	Ala	Thr	Ala	Asn	Leu
785					790					795					800

Ser Arg Lys Ala Val Ser Asp Met Leu Thr Ala Cys Lys Gln Ala Ser  
 805 810 815  
 Phe His Pro Asp Val Ser Asp Glu Val Arg Thr Arg Ala Leu Arg Phe  
 820 825 830  
 Gly Thr Glu Cys Thr Leu Gly Tyr Leu Asp Leu Leu Glu His Val Leu  
 835 840 845  
 Val Ile Leu Gln Lys Pro Thr Pro Glu Phe Lys Gln Gln Leu Ala Ala  
 850 855 860  
 Phe Ser Lys Arg Val Ala Gly Ala Val Thr Glu Leu Ile Gln Ala Ala  
 865 870 875 880  
 Glu Ala Met Lys Gly Thr Glu Trp Val Asp Pro Glu Asp Pro Thr Val  
 885 890 895  
 Ile Ala Glu Thr Glu Leu Leu Gly Ala Ala Ala Ser Ile Glu Ala Ala  
 900 905 910  
 Ala Lys Lys Leu Glu Gln Leu Lys Pro Arg Ala Lys Pro Lys Gln Ala  
 915 920 925  
 Asp Glu Thr Leu Asp Phe Glu Glu Gln Ile Leu Glu Ala Ala Lys Ser  
 930 935 940  
 Ile Ala Ala Ala Thr Ser Ala Leu Val Lys Ser Ala Ser Ala Ala Gln  
 945 950 955 960  
 Arg Glu Leu Val Ala Gln Gly Lys Val Gly Ser Ile Pro Ala Asn Ala  
 965 970 975  
 Ala Asp Asp Gly Gln Trp Ser Gln Gly Leu Ile Ser Ala Ala Arg Met  
 980 985 990  
 Val Ala Ala Ala Thr Ser Ser Leu Cys Glu Ala Ala Asn Ala Ser Val  
 995 1000 1005  
 Gln Gly His Ala Ser Glu Glu Lys Leu Ile Ser Ser Ala Lys Gln Val  
 1010 1015 1020  
 Ala Ala Ser Thr Ala Gln Leu Leu Val Ala Cys Lys Val Lys Ala Asp  
 1025 1030 1035 1040  
 Gln Asp Ser Glu Ala Met Arg Arg Leu Gln Ala Ala Gly Asn Ala Val  
 1045 1050 1055  
 Lys Arg Ala Ser Asp Asn Leu Val Arg Ala Ala Gln Lys Ala Ala Phe  
 1060 1065 1070  
 Gly Lys Ala Asp Asp Asp Val Val Val Lys Thr Lys Phe Val Gly  
 1075 1080 1085  
 Gly Ile Ala Gln Ile Ile Ala Ala Gln Glu Glu Met Leu Lys Lys Glu  
 1090 1095 1100  
 Arg Glu Leu Glu Glu Ala Arg Lys Lys Leu Ala Gln Ile Arg Gln Gln  
 1105 1110 1115 1120  
 Gln Tyr Lys Phe Leu Pro Thr Glu Leu Arg Glu Asp Glu Gly \*  
 1125 1130 1134

&lt;210&gt; 1473

&lt;211&gt; 512

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1473

Met Ala Thr Val Gln Glu Lys Ala Ala Ala Leu Asn Leu Ser Ala Leu  
 1 5 10 15  
 His Ser Pro Ala His Arg Pro Pro Gly Phe Ser Val Ala Gln Lys Pro  
 20 25 30  
 Phe Gly Ala Thr Tyr Val Trp Ser Ser Ile Ile Asn Thr Leu Gln Thr  
 35 40 45  
 Gln Val Glu Val Lys Lys Arg Arg His Arg Leu Lys Arg His Asn Asp  
 50 55 60  
 Cys Phe Val Gly Ser Glu Ala Val Asp Val Ile Phe Ser His Leu Ile  
 65 70 75 80  
 Gln Asn Lys Tyr Phe Gly Asp Val Asp Ile Pro Arg Ala Lys Val Val  
 85 90 95

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Arg Val Cys Gln Ala Leu Met Asp Tyr Lys Val Phe Glu Ala Val Pro
      100      105      110
Thr Lys Val Phe Gly Lys Asp Lys Lys Pro Thr Phe Glu Asp Ser Ser
      115      120      125
Cys Ser Leu Tyr Arg Phe Thr Thr Ile Pro Asn Gln Asp Ser Gln Leu
      130      135      140
Gly Lys Glu Asn Lys Leu Tyr Ser Pro Ala Arg Tyr Ala Asp Ala Leu
      145      150      155      160
Phe Lys Ser Ser Asp Ile Arg Ser Ala Ser Leu Glu Asp Leu Trp Glu
      165      170      175
Asn Leu Ser Leu Lys Pro Ala Asn Ser Pro His Val Asn Ile Ser Thr
      180      185      190
Thr Leu Ser Pro Gln Val Ile Asn Glu Val Trp Gln Glu Glu Thr Ile
      195      200      205
Gly Arg Leu Leu Gln Leu Val Asp Leu Pro Leu Leu Asp Ser Leu Leu
      210      215      220
Lys Gln Gln Glu Ala Val Pro Lys Ile Pro Gln Pro Lys Arg Gln Ser
      225      230      235      240
Thr Met Val Asn Ser Ser Asn Tyr Leu Asp Arg Gly Ile Leu Lys Ala
      245      250      255
Tyr Ser Asp Ser Gln Glu Asp Glu Trp Leu Ser Ala Ala Ile Asp Cys
      260      265      270
Leu Glu Tyr Leu Pro Asp Gln Met Val Val Glu Ile Ser Arg Ser Phe
      275      280      285
Pro Glu Gln Pro Asp Arg Thr Asp Leu Val Lys Glu Leu Leu Phe Asp
      290      295      300
Ala Ile Gly Arg Tyr Tyr Ser Ser Arg Glu Pro Leu Leu Asn His Leu
      305      310      315      320
Ser Asp Val His Asn Gly Ile Ala Glu Leu Leu Val Asn Gly Lys Thr
      325      330      335
Glu Ile Ala Leu Glu Ala Thr Gln Leu Leu Leu Lys Leu Leu Asp Phe
      340      345      350
Gln Asn Arg Glu Glu Phe Arg Arg Leu Leu Tyr Phe Met Ala Val Ala
      355      360      365
Ala Asn Pro Ser Glu Phe Lys Leu Gln Lys Glu Ser Asp Asn Arg Met
      370      375      380
Val Val Lys Arg Ile Phe Ser Lys Ala Ile Val Asp Asn Lys Asn Leu
      385      390      395      400
Ser Lys Gly Lys Thr Asp Leu Leu Val Leu Phe Leu Met Asp His Gln
      405      410      415
Lys Asp Val Phe Lys Ile Pro Gly Thr Leu His Lys Ile Val Ser Val
      420      425      430
Lys Leu Met Ala Ile Gln Asn Gly Arg Asp Pro Asn Arg Asp Ala Gly
      435      440      445
Tyr Ile Tyr Cys Gln Arg Ile Asp Gln Arg Asp Tyr Ser Asn Asn Thr
      450      455      460
Glu Lys Thr Thr Lys Asp Glu Leu Leu Asn Leu Leu Lys Thr Leu Asp
      465      470      475      480
Glu Asp Ser Lys Leu Ser Ala Lys Glu Lys Lys Lys Leu Leu Gly Gln
      485      490      495
Phe Tyr Lys Cys His Pro Asp Ile Phe Ile Glu His Phe Gly Asp *
      500      505      510 511

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&lt;210&gt; 1474

&lt;211&gt; 198

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1474

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Met Phe Gly Cys Leu Val Ala Gly Arg Leu Val Gln Thr Ala Ala Gln
  1           5           10           15

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Gln Val Ala Glu Asp Lys Phe Val Phe Asp Leu Pro Asp Tyr Glu Ser  
                   20                  25                  30  
 Ile Asn His Val Val Val Phe Met Leu Gly Thr Ile Pro Phe Pro Glu  
                   35                  40                  45  
 Gly Met Gly Gly Ser Val Tyr Phe Ser Tyr Pro Asp Ser Asn Gly Met  
                   50                  55                  60  
 Pro Val Trp Gln Leu Leu Gly Phe Val Thr Asn Gly Lys Pro Ser Ala  
                   65                  70                  75                  80  
 Ile Phe Lys Ile Ser Gly Leu Lys Ser Gly Glu Gly Ser Gln His Pro  
                   85                  90                  95  
 Phe Gly Ala Met Asn Ile Val Arg Thr Pro Ser Val Ala Gln Ile Gly  
                   100                  105                  110  
 Ile Ser Val Glu Leu Leu Asp Ser Met Ala Gln Gln Thr Pro Val Gly  
                   115                  120                  125  
 Asn Ala Ala Val Ser Ser Val Asp Ser Phe Thr Gln Phe Thr Gln Lys  
                   130                  135                  140  
 Met Leu Asp Asn Phe Tyr Asn Phe Ala Ser Ser Phe Ala Val Ser Gln  
                   145                  150                  155                  160  
 Ala Gln Met Thr Pro Ser Pro Ser Glu Met Phe Ile Pro Ala Asn Val  
                   165                  170                  175  
 Val Leu Lys Trp Tyr Glu Asn Phe Gln Arg Arg Leu Ala Gln Asn Pro  
                   180                  185                  190  
 Leu Phe Trp Lys Thr \*  
                   195                  197

&lt;210&gt; 1475

&lt;211&gt; 445

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1475

Met Ala Gly Gly Met Lys Val Ala Val Ser Pro Ala Val Gly Pro Gly  
                   1                  5                  10                  15  
 Pro Trp Gly Ser Gly Val Gly Gly Gly Gly Thr Val Arg Leu Leu Leu  
                   20                  25                  30  
 Ile Leu Ser Gly Cys Leu Val Tyr Gly Thr Ala Glu Thr Asp Val Asn  
                   35                  40                  45  
 Val Val Met Leu Gln Glu Ser Gln Val Cys Glu Lys Arg Ala Ser Gln  
                   50                  55                  60  
 Gln Phe Cys Tyr Thr Asn Val Leu Ile Pro Gln Trp His Asp Ile Trp  
                   65                  70                  75                  80  
 Thr Arg Ile Gln Ile Arg Val Asn Ser Ser Arg Leu Val Arg Val Thr  
                   85                  90                  95  
 Gln Val Glu Asn Glu Glu Lys Leu Lys Glu Leu Glu Gln Phe Ser Ile  
                   100                  105                  110  
 Trp Asn Phe Phe Ser Ser Phe Leu Lys Glu Lys Leu Asn Asp Thr Tyr  
                   115                  120                  125  
 Val Asn Val Gly Leu Tyr Ser Thr Lys Thr Cys Leu Lys Val Glu Ile  
                   130                  135                  140  
 Ile Glu Lys Asp Thr Lys Tyr Ser Val Ile Val Ile Arg Arg Phe Asp  
                   145                  150                  155                  160  
 Pro Lys Leu Phe Leu Val Phe Leu Leu Gly Leu Met Leu Phe Phe Cys  
                   165                  170                  175  
 Gly Asp Leu Leu Ser Arg Ser Gln Ile Phe Tyr Tyr Ser Thr Gly Met  
                   180                  185                  190  
 Thr Val Gly Ile Val Ala Ser Leu Leu Ile Ile Ile Phe Ile Leu Ser  
                   195                  200                  205  
 Lys Phe Met Pro Lys Lys Ser Pro Ile Tyr Val Ile Leu Val Gly Gly  
                   210                  215                  220  
 Trp Ser Phe Ser Leu Tyr Leu Ile Gln Leu Val Phe Lys Asn Leu Gln  
                   225                  230                  235                  240

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Glu Ile Trp Arg Cys Tyr Trp Gln Tyr Leu Leu Ser Tyr Val Leu Thr
      245                250                255
Val Gly Phe Met Ser Phe Ala Val Cys Tyr Lys Tyr Gly Pro Leu Glu
      260                265                270
Asn Glu Arg Ser Ile Asn Leu Leu Thr Trp Thr Leu Gln Leu Met Gly
      275                280                285
Leu Cys Phe Met Tyr Ser Gly Ile Gln Ile Pro His Ile Ala Leu Ala
      290                295                300
Ile Ile Ile Ile Ala Leu Cys Thr Lys Asn Leu Glu His Pro Ile Gln
      305                310                315                320
Trp Leu Tyr Ile Thr Cys Arg Lys Val Cys Lys Gly Ala Glu Lys Pro
      325                330                335
Val Pro Pro Arg Leu Leu Thr Glu Glu Tyr Arg Ile Gln Gly Glu
      340                345                350
Val Glu Thr Arg Lys Ala Leu Glu Glu Leu Arg Glu Phe Cys Asn Ser
      355                360                365
Pro Asp Cys Ser Ala Trp Lys Thr Val Ser Arg Ile Gln Ser Pro Lys
      370                375                380
Arg Phe Ala Asp Phe Val Glu Gly Ser Ser His Leu Thr Pro Asn Glu
      385                390                395                400
Val Ser Val His Glu Gln Glu Tyr Gly Leu Gly Ser Ile Ile Ala Gln
      405                410                415
Asp Glu Ile Tyr Glu Glu Ala Ser Ser Glu Glu Glu Asp Ser Tyr Ser
      420                425                430
Arg Cys Pro Ala Ile Thr Gln Asn Asn Phe Leu Thr *
      435                440                444

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&lt;210&gt; 1476

&lt;211&gt; 375

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1476

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Met Glu Glu Ser Asp Ser Glu Lys Thr Thr Glu Lys Glu Asn Leu Gly
  1          5          10          15
Pro Arg Met Asp Pro Pro Leu Gly Glu Pro Glu Gly Ser Leu Gly Trp
      20          25          30
Val Leu Pro Asn Thr Ala Met Lys Lys Lys Val Leu Leu Met Gly Lys
      35          40          45
Ser Gly Ser Gly Lys Thr Ser Met Arg Ser Ile Ile Phe Ala Asn Tyr
      50          55          60
Ile Ala Arg Asp Thr Arg Arg Leu Gly Ala Thr Ile Leu Asp Arg Ile
      65          70          75          80
His Ser Leu Gln Ile Asn Ser Ser Leu Ser Thr Tyr Ser Leu Val Asp
      85          90          95
Ser Val Gly Asn Thr Lys Thr Phe Asp Val Glu His Ser His Val Arg
      100         105         110
Phe Leu Gly Asn Leu Val Leu Asn Leu Trp Asp Cys Gly Gly Gln Asp
      115         120         125
Thr Phe Met Glu Asn Tyr Phe Thr Ser Gln Arg Asp Asn Ile Phe Arg
      130         135         140
Asn Val Glu Val Leu Ile Tyr Val Phe Asp Val Glu Ser Arg Glu Leu
      145         150         155         160
Glu Lys Asp Met His Tyr Tyr Gln Ser Cys Leu Glu Ala Ile Leu Gln
      165         170         175
Asn Ser Pro Asp Ala Lys Ile Phe Cys Leu Val His Lys Met Asp Leu
      180         185         190
Val Gln Glu Asp Gln Arg Asp Leu Ile Phe Lys Glu Arg Glu Glu Asp
      195         200         205
Leu Arg Arg Leu Ser Arg Pro Leu Glu Cys Ser Cys Phe Arg Thr Ser
      210         215         220

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Ile Trp Asp Glu Thr Leu Tyr Lys Ala Trp Ser Ser Ile Val Tyr Gln
225                230                235                240
Leu Ile Pro Asn Val Gln Gln Leu Glu Met Asn Leu Arg Asn Phe Ala
                245                250                255
Glu Ile Ile Glu Ala Asp Glu Val Leu Leu Phe Glu Arg Ala Thr Phe
                260                265                270
Leu Val Ile Ser His Tyr Gln Cys Lys Glu Gln Arg Asp Ala His Arg
                275                280                285
Phe Glu Lys Ile Ser Asn Ile Ile Lys Gln Phe Lys Leu Ser Cys Ser
                290                295                300
Lys Leu Ala Ala Ser Phe Gln Ser Met Glu Val Arg Asn Ser Asn Phe
305                310                315                320
Ala Ala Phe Ile Asp Ile Phe Thr Ser Asn Thr Tyr Val Met Val Val
                325                330                335
Met Ser Asp Pro Ser Ile Pro Ser Ala Ala Thr Leu Ile Asn Ile Arg
                340                345                350
Asn Ala Arg Lys His Phe Glu Lys Leu Glu Arg Val Asp Gly Pro Lys
                355                360                365
Gln Cys Leu Leu Met Arg *
                370                374

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<210> 1477
<211> 347
<212> PRT
<213> Homo sapiens

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<400> 1477
Met Glu Glu Ser Asp Ser Glu Lys Thr Thr Glu Lys Glu Asn Leu Gly
1      5      10      15
Pro Arg Met Asp Pro Pro Leu Gly Glu Pro Glu Gly Ser Leu Gly Trp
20      25      30
Val Leu Pro Asn Thr Ala Met Lys Lys Val Leu Leu Met Gly Lys
35      40      45
Ser Gly Ser Gly Lys Thr Ser Met Arg Ser Ile Ile Phe Ala Asn Tyr
50      55      60
Ile Ala Arg Asp Thr Arg Arg Leu Gly Ala Thr Ile Asp Val Glu His
65      70      75      80
Ser His Val Arg Phe Leu Gly Asn Leu Val Leu Asn Leu Trp Asp Cys
85      90      95
Gly Gly Gln Asp Thr Phe Met Glu Asn Tyr Phe Thr Ser Gln Arg Asp
100     105     110
Asn Ile Phe Arg Asn Val Glu Val Leu Ile Tyr Val Phe Asp Val Glu
115     120     125
Ser Arg Glu Leu Glu Lys Asp Met His Tyr Tyr Gln Ser Cys Leu Glu
130     135     140
Ala Ile Leu Gln Asn Ser Pro Asp Ala Lys Ile Phe Cys Leu Val His
145     150     155     160
Lys Met Asp Leu Val Gln Glu Asp Gln Arg Asp Leu Ile Phe Lys Glu
165     170     175
Arg Glu Glu Asp Leu Arg Arg Leu Ser Arg Pro Leu Glu Cys Ser Cys
180     185     190
Phe Arg Thr Ser Ile Trp Asp Glu Thr Leu Tyr Lys Ala Trp Ser Ser
195     200     205
Ile Val Tyr Gln Leu Ile Pro Asn Val Gln Gln Leu Glu Met Asn Leu
210     215     220
Arg Asn Phe Ala Glu Ile Ile Glu Ala Asp Glu Val Leu Leu Phe Glu
225     230     235     240
Arg Ala Thr Phe Leu Val Ile Ser His Tyr Gln Cys Lys Glu Gln Arg
245     250     255
Asp Ala His Arg Phe Glu Lys Ile Ser Asn Ile Ile Lys Gln Phe Lys
260     265     270

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<210> 1478
<211> 388
<212> PRT
<213> Homo sapiens
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3270

Pro Ser Ile Pro Ser Ala Ala Thr Leu Ile Asn Ile Arg Asn Ala Arg  
           355                                  360                  365  
 Lys His Phe Glu Lys Leu Glu Arg Val Asp Gly Pro Lys Gln Cys Leu  
           370                                  375                  380  
 Leu Met Arg \*  
 385          387

<210> 1479  
 <211> 957  
 <212> PRT  
 <213> Homo sapiens

<400> 1479  
 Met Ala Ser Lys Arg Lys Ser Thr Thr Pro Cys Met Ile Pro Val Lys  
   1                                  5                  10                  15  
 Thr Val Val Leu Gln Asp Ala Ser Met Glu Ala Gln Pro Ala Glu Thr  
           20                                  25                  30  
 Leu Pro Glu Gly Pro Gln Gln Asp Leu Pro Pro Glu Ala Ser Ala Ala  
           35                                  40                  45  
 Ser Ser Glu Ala Ala Gln Asn Pro Ser Ser Thr Asp Gly Ser Thr Leu  
   50                                  55                  60  
 Ala Asn Gly His Arg Ser Thr Leu Asp Gly Tyr Leu Tyr Ser Cys Lys  
   65                                  70                  75                  80  
 Tyr Cys Asp Phe Arg Ser His Asp Met Thr Gln Phe Val Gly His Met  
           85                                  90                  95  
 Asn Ser Glu His Thr Asp Phe Asn Lys Asp Pro Thr Phe Val Cys Ser  
           100                                  105                  110  
 Gly Cys Ser Phe Leu Ala Lys Thr Pro Glu Gly Leu Ser Leu His Asn  
           115                                  120                  125  
 Ala Thr Cys His Ser Gly Glu Ala Ser Phe Val Trp Asn Val Ala Lys  
   130                                  135                  140  
 Pro Asp Asn His Val Val Val Glu Gln Ser Ile Pro Glu Ser Thr Ser  
 145                                  150                  155                  160  
 Thr Pro Asp Leu Ala Gly Glu Pro Ser Ala Glu Gly Ala Asp Gly Gln  
           165                                  170                  175  
 Ala Glu Ile Ile Ile Thr Lys Thr Pro Ile Met Lys Ile Met Lys Gly  
           180                                  185                  190  
 Lys Ala Glu Ala Lys Lys Ile His Thr Leu Lys Glu Asn Val Pro Ser  
           195                                  200                  205  
 Gln Pro Val Gly Glu Ala Leu Pro Lys Leu Ser Thr Gly Glu Met Glu  
   210                                  215                  220  
 Val Arg Glu Gly Asp His Ser Phe Ile Asn Gly Ala Val Pro Val Ser  
 225                                  230                  235                  240  
 Gln Ala Ser Ala Ser Ser Ala Lys Asn Pro His Ala Ala Asn Gly Pro  
           245                                  250                  255  
 Leu Ile Gly Thr Val Pro Val Leu Pro Ala Gly Ile Ala Gln Phe Leu  
           260                                  265                  270  
 Ser Leu Gln Gln Gln Pro Pro Val His Ala Gln His His Val His Gln  
           275                                  280                  285  
 Pro Leu Pro Thr Ala Lys Ala Leu Pro Lys Val Met Ile Pro Leu Ser  
   290                                  295                  300  
 Ser Ile Pro Thr Tyr Ser Ala Ala Met Asp Ser Asn Ser Phe Leu Lys  
 305                                  310                  315                  320  
 Asn Ser Phe His Lys Phe Pro Tyr Pro Thr Lys Ala Glu Leu Cys Tyr  
           325                                  330                  335  
 Leu Thr Val Val Thr Lys Tyr Pro Glu Glu Gln Leu Lys Ile Trp Phe  
           340                                  345                  350  
 Thr Ala Gln Arg Leu Lys Gln Gly Ile Ser Trp Ser Pro Glu Glu Ile  
           355                                  360                  365  
 Glu Asp Ala Arg Lys Lys Met Phe Asn Thr Val Ile Gln Ser Val Pro  
 370                                  375                  380

Gln	Pro	Thr	Ile	Thr	Val	Leu	Asn	Thr	Pro	Leu	Val	Ala	Ser	Ala	Gly	385	390	395	400
Asn	Val	Gln	His	Leu	Ile	Gln	Ala	Ala	Leu	Pro	Gly	His	Val	Val	Gly	405	410	415	
Gln	Pro	Glu	Gly	Thr	Gly	Gly	Gly	Leu	Leu	Val	Thr	Gln	Pro	Leu	Met	420	425	430	
Ala	Asn	Gly	Leu	Gln	Ala	Thr	Ser	Ser	Pro	Leu	Pro	Leu	Thr	Val	Thr	435	440	445	
Ser	Val	Pro	Lys	Gln	Pro	Gly	Val	Ala	Pro	Ile	Asn	Thr	Val	Cys	Ser	450	455	460	
Asn	Thr	Thr	Ser	Ala	Val	Lys	Val	Val	Asn	Ala	Ala	Gln	Ser	Leu	Leu	465	470	475	480
Thr	Ala	Cys	Pro	Ser	Ile	Thr	Ser	Gln	Ala	Phe	Leu	Asp	Ala	Ser	Ile	485	490	495	
Tyr	Lys	Asn	Lys	Lys	Ser	His	Glu	Gln	Leu	Ser	Ala	Leu	Lys	Gly	Ser	500	505	510	
Phe	Cys	Arg	Asn	Gln	Phe	Pro	Gly	Gln	Ser	Glu	Val	Glu	His	Leu	Thr	515	520	525	
Lys	Val	Thr	Gly	Leu	Ser	Thr	Arg	Glu	Val	Arg	Lys	Trp	Phe	Ser	Asp	530	535	540	
Arg	Arg	Tyr	His	Cys	Arg	Asn	Leu	Lys	Gly	Ser	Arg	Ala	Met	Ile	Pro	545	550	555	560
Gly	Asp	His	Ser	Ser	Ile	Ile	Ile	Asp	Ser	Val	Pro	Glu	Val	Ser	Phe	565	570	575	
Ser	Pro	Ser	Ser	Lys	Val	Pro	Glu	Val	Thr	Cys	Ile	Pro	Thr	Thr	Ala	580	585	590	
Thr	Leu	Ala	Thr	His	Pro	Ser	Ala	Lys	Arg	Gln	Ser	Trp	His	Gln	Thr	595	600	605	
Pro	Asp	Phe	Thr	Pro	Thr	Lys	Tyr	Lys	Glu	Arg	Ala	Pro	Glu	Gln	Leu	610	615	620	
Arg	Ala	Leu	Glu	Ser	Ser	Phe	Ala	Gln	Asn	Pro	Leu	Pro	Leu	Asp	Glu	625	630	635	640
Glu	Leu	Asp	Arg	Leu	Arg	Ser	Glu	Thr	Lys	Met	Thr	Arg	Arg	Glu	Ile	645	650	655	
Asp	Ser	Trp	Phe	Ser	Glu	Arg	Arg	Lys	Lys	Val	Asn	Ala	Glu	Glu	Thr	660	665	670	
Lys	Lys	Ala	Glu	Glu	Asn	Ala	Ser	Gln	Glu	Glu	Glu	Glu	Ala	Ala	Glu	675	680	685	
Asp	Glu	Gly	Gly	Glu	Glu	Asp	Leu	Ala	Ser	Glu	Leu	Arg	Val	Ser	Gly	690	695	700	
Glu	Asn	Gly	Ser	Leu	Glu	Met	Pro	Ser	Ser	His	Ile	Leu	Ala	Glu	Arg	705	710	715	720
Lys	Val	Ser	Pro	Ile	Lys	Ile	Asn	Leu	Lys	Asn	Leu	Arg	Val	Thr	Glu	725	730	735	
Ala	Asn	Gly	Arg	Asn	Glu	Ile	Pro	Gly	Leu	Gly	Ala	Cys	Asp	Pro	Glu	740	745	750	
Asp	Asp	Glu	Ser	Asn	Lys	Leu	Ala	Glu	Gln	Leu	Pro	Gly	Lys	Val	Ser	755	760	765	
Cys	Lys	Lys	Thr	Ala	Gln	Gln	Arg	His	Leu	Leu	Arg	Gln	Leu	Phe	Val	770	775	780	
Gln	Thr	Gln	Trp	Pro	Ser	Asn	Gln	Asp	Tyr	Asp	Ser	Ile	Met	Ala	Gln	785	790	795	800
Thr	Gly	Leu	Pro	Arg	Pro	Glu	Val	Val	Arg	Trp	Phe	Gly	Asp	Ser	Arg	805	810	815	
Tyr	Ala	Leu	Lys	Asn	Gly	Gln	Leu	Lys	Trp	Tyr	Glu	Asp	Tyr	Lys	Arg	820	825	830	
Gly	Asn	Phe	Pro	Pro	Gly	Leu	Leu	Val	Ile	Ala	Pro	Gly	Asn	Arg	Glu	835	840	845	
Leu	Leu	Gln	Asp	Tyr	Tyr	Met	Thr	His	Lys	Met	Leu	Tyr	Glu	Glu	Asp	850	855	860	
Leu	Gln	Asn	Leu	Cys	Asp	Lys	Thr	Gln	Met	Ser	Ser	Gln	Gln	Val	Lys	865	870	875	880
Gln	Trp	Phe	Ala	Glu	Lys	Met	Gly	Glu	Glu	Thr	Arg	Ala	Val	Ala	Asp	885	890	895	

Thr Gly Ser Glu Asp Gln Gly Pro Gly Thr Gly Glu Leu Thr Ala Val  
                   900                  905                  910  
 His Lys Gly Met Gly Asp Thr Tyr Ser Glu Val Ser Glu Asn Ser Glu  
                   915                  920                  925  
 Ser Trp Glu Pro Arg Val Pro Glu Ala Ser Ser Glu Pro Phe Asp Thr  
                   930                  935                  940  
 Ser Ser Pro Gln Ala Gly Arg Gln Leu Glu Thr Asp \*  
 945                  950                  955 956

&lt;210&gt; 1480

&lt;211&gt; 400

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1480

Met Ala Gln Arg Ala Phe Pro Asn Pro Tyr Ala Asp Tyr Asn Lys Ser  
   1                  5                  10                  15  
 Leu Ala Glu Gly Tyr Phe Asp Ala Ala Gly Arg Leu Thr Pro Glu Phe  
                   20                  25                  30  
 Ser Gln Arg Leu Thr Asn Lys Ile Arg Glu Leu Leu Gln Gln Met Glu  
                   35                  40                  45  
 Arg Gly Leu Lys Ser Ala Asp Pro Arg Asp Gly Thr Gly Tyr Thr Gly  
                   50                  55                  60  
 Trp Ala Gly Ile Ala Val Leu Tyr Leu His Leu Tyr Asp Val Phe Gly  
                   65                  70                  75                  80  
 Asp Pro Ala Tyr Leu Gln Leu Ala His Gly Tyr Val Lys Gln Ser Leu  
                   85                  90                  95  
 Asn Cys Leu Thr Lys Arg Ser Ile Thr Phe Leu Cys Gly Asp Ala Gly  
                   100                  105                  110  
 Pro Leu Ala Val Ala Ala Val Leu Tyr His Lys Met Asn Asn Glu Lys  
                   115                  120                  125  
 Gln Ala Glu Asp Cys Ile Thr Arg Leu Ile His Leu Asn Lys Ile Asp  
                   130                  135                  140  
 Pro His Ala Pro Asn Glu Met Leu Tyr Gly Arg Ile Gly Tyr Ile Tyr  
                   145                  150                  155                  160  
 Ala Leu Leu Phe Val Asn Lys Asn Phe Gly Val Glu Lys Ile Pro Gln  
                   165                  170                  175  
 Ser His Ile Gln Gln Ile Cys Glu Thr Ile Leu Thr Ser Gly Glu Asn  
                   180                  185                  190  
 Leu Ala Arg Lys Arg Asn Phe Thr Ala Lys Ser Pro Leu Met Tyr Glu  
                   195                  200                  205  
 Trp Tyr Gln Glu Tyr Tyr Val Gly Ala Ala His Gly Leu Ala Gly Ile  
                   210                  215                  220  
 Tyr Tyr Tyr Leu Met Gln Pro Ser Leu Gln Val Ser Gln Gly Lys Leu  
                   225                  230                  235                  240  
 His Ser Leu Val Lys Pro Ser Val Asp Tyr Val Cys Gln Leu Lys Phe  
                   245                  250                  255  
 Pro Ser Gly Asn Tyr Pro Pro Cys Ile Gly Asp Asn Arg Asp Leu Leu  
                   260                  265                  270  
 Val His Trp Cys His Gly Ala Pro Gly Val Ile Tyr Met Leu Ile Gln  
                   275                  280                  285  
 Ala Tyr Lys Val Phe Arg Glu Glu Lys Tyr Leu Cys Asp Ala Tyr Gln  
                   290                  295                  300  
 Cys Ala Asp Val Ile Trp Gln Tyr Gly Leu Leu Lys Lys Gly Tyr Gly  
                   305                  310                  315                  320  
 Leu Cys His Gly Ser Ala Gly Asn Ala Tyr Ala Phe Leu Thr Leu Tyr  
                   325                  330                  335  
 Asn Leu Thr Gln Asp Met Lys Tyr Leu Tyr Arg Ala Cys Lys Phe Ala  
                   340                  345                  350  
 Glu Trp Cys Leu Glu Tyr Gly Glu His Gly Cys Arg Thr Pro Asp Thr  
                   355                  360                  365

Pro Phe Ser Leu Phe Glu Gly Met Ala Gly Thr Ile Tyr Phe Leu Ala  
 370 375 380  
 Asp Leu Leu Val Pro Thr Lys Ala Arg Phe Pro Ala Phe Glu Leu \*  
 385 390 395 399

<210> 1481  
 <211> 836  
 <212> PRT  
 <213> Homo sapiens

<400> 1481  
 Met Pro Gln Thr Pro Val Pro Pro Glu Gly Gln Gly Gln Leu Pro Arg  
 1 5 10 15  
 Arg Ala Gly Ser Arg Glu Ala Val Pro Ala Pro Ala Ser Ala Pro Glu  
 20 25 30  
 Ala Ala Pro Gly Ser Ala Arg Pro Gly Arg Ser Arg His Val Thr Gly  
 35 40 45  
 Ala Ala Arg Ser Pro Ser Arg Ala Gly Pro Ser Asp Pro Pro Ala Met  
 50 55 60  
 Gly Asp Glu Asp Asp Asp Glu Ser Cys Ala Val Glu Leu Arg Ile Thr  
 65 70 75 80  
 Glu Ala Asn Leu Thr Gly His Glu Glu Lys Val Ser Val Glu Asn Phe  
 85 90 95  
 Glu Leu Leu Lys Val Leu Gly Thr Gly Ala Tyr Gly Lys Val Phe Leu  
 100 105 110  
 Val Arg Lys Ala Gly Gly His Asp Ala Gly Lys Leu Tyr Ala Met Lys  
 115 120 125  
 Val Leu Arg Lys Ala Ala Leu Val Gln Arg Ala Lys Thr Gln Glu His  
 130 135 140  
 Thr Arg Thr Glu Arg Ser Val Leu Glu Leu Val Arg Gln Ala Pro Phe  
 145 150 155 160  
 Leu Val Thr Leu His Tyr Ala Phe Gln Thr Asp Ala Lys Leu His Leu  
 165 170 175  
 Ile Leu Asp Tyr Val Ser Gly Gly Glu Met Phe Thr His Leu Tyr Gln  
 180 185 190  
 Arg Gln Tyr Phe Lys Glu Ala Glu Val Arg Val Tyr Gly Gly Glu Ile  
 195 200 205  
 Val Leu Ala Leu Glu His Leu His Lys Leu Gly Ile Ile Tyr Arg Asp  
 210 215 220  
 Leu Lys Leu Glu Asn Val Leu Leu Asp Ser Glu Gly His Ile Val Leu  
 225 230 235 240  
 Thr Asp Phe Gly Leu Ser Lys Glu Phe Leu Thr Glu Glu Lys Glu Arg  
 245 250 255  
 Thr Phe Ser Phe Cys Gly Thr Ile Glu Tyr Met Ala Pro Glu Ile Ile  
 260 265 270  
 Arg Ser Lys Thr Gly His Gly Lys Ala Val Asp Trp Trp Ser Leu Gly  
 275 280 285  
 Ile Leu Leu Phe Glu Leu Leu Thr Gly Ala Ser Pro Phe Thr Leu Glu  
 290 295 300  
 Gly Glu Arg Asn Thr Gln Ala Glu Val Ser Arg Arg Ile Leu Lys Cys  
 305 310 315 320  
 Ser Pro Pro Phe Pro Pro Arg Ile Gly Pro Val Ala Gln Asp Leu Leu  
 325 330 335  
 Gln Arg Leu Leu Cys Lys Asp Pro Lys Lys Arg Leu Gly Ala Gly Pro  
 340 345 350  
 Gln Gly Ala Gln Glu Val Arg Asn His Pro Phe Phe Gln Gly Leu Asp  
 355 360 365  
 Trp Val Ala Leu Ala Ala Arg Lys Ile Pro Ala Pro Phe Arg Pro Gln  
 370 375 380  
 Ile Arg Ser Glu Leu Asp Val Gly Asn Phe Ala Glu Glu Phe Thr Arg  
 385 390 395 400

Leu Glu Pro Val Tyr Ser Pro Pro Gly Ser Pro Pro Pro Gly Asp Pro  
 405 410 415  
 Arg Ile Phe Gln Gly Tyr Ser Phe Val Ala Pro Ser Ile Leu Phe Asp  
 420 425 430  
 His Asn Asn Ala Val Met Thr Asp Gly Leu Glu Ala Pro Gly Ala Gly  
 435 440 445  
 Asp Arg Pro Gly Arg Ala Ala Val Ala Arg Ser Ala Met Met Gln Asp  
 450 455 460  
 Ser Pro Phe Phe Gln Gln Tyr Glu Leu Asp Leu Arg Glu Pro Ala Leu  
 465 470 475 480  
 Gly Gln Gly Ser Phe Ser Val Cys Arg Arg Cys Arg Gln Arg Gln Ser  
 485 490 495  
 Gly Gln Glu Phe Ala Val Lys Ile Leu Ser Arg Arg Leu Glu Ala Asn  
 500 505 510  
 Thr Gln Arg Glu Val Ala Ala Leu Arg Leu Cys Gln Ser His Pro Asn  
 515 520 525  
 Val Val Asn Leu His Glu Val His His Asp Gln Leu His Thr Tyr Leu  
 530 535 540  
 Val Leu Glu Leu Leu Arg Gly Gly Glu Leu Leu Glu His Ile Arg Lys  
 545 550 555 560  
 Lys Arg His Phe Ser Glu Ser Glu Ala Ser Gln Ile Leu Arg Ser Leu  
 565 570 575  
 Val Ser Ala Val Ser Phe Met His Glu Glu Ala Gly Val Val His Arg  
 580 585 590  
 Asp Leu Lys Pro Glu Asn Ile Leu Tyr Ala Asp Asp Thr Pro Gly Ala  
 595 600 605  
 Pro Val Lys Ile Ile Asp Phe Gly Phe Ala Arg Leu Arg Pro Gln Ser  
 610 615 620  
 Pro Gly Val Pro Met Gln Thr Pro Cys Phe Thr Leu Gln Tyr Ala Ala  
 625 630 635 640  
 Pro Glu Leu Leu Ala Gln Gln Gly Tyr Asp Glu Ser Cys Asp Leu Trp  
 645 650 655  
 Ser Leu Gly Val Ile Leu Tyr Met Met Leu Ser Gly Gln Val Pro Phe  
 660 665 670  
 Gln Gly Ala Ser Gly Gln Gly Gly Gln Ser Gln Ala Ala Glu Ile Met  
 675 680 685  
 Cys Lys Ile Arg Glu Gly Arg Phe Ser Leu Asp Gly Glu Ala Trp Gln  
 690 695 700  
 Gly Val Ser Glu Glu Ala Lys Glu Leu Val Arg Gly Leu Leu Thr Val  
 705 710 715 720  
 Asp Pro Ala Lys Arg Leu Lys Leu Glu Gly Leu Arg Gly Ser Ser Trp  
 725 730 735  
 Leu Gln Asp Gly Ser Ala Arg Ser Ser Pro Pro Leu Arg Thr Pro Asp  
 740 745 750  
 Val Leu Glu Ser Ser Gly Pro Ala Val Arg Ser Gly Leu Asn Ala Thr  
 755 760 765  
 Phe Met Ala Phe Asn Arg Gly Lys Arg Glu Gly Phe Phe Leu Lys Ser  
 770 775 780  
 Val Glu Asn Ala Pro Leu Ala Lys Arg Arg Lys Gln Lys Leu Arg Ser  
 785 790 795 800  
 Ala Thr Ala Ser Arg Arg Gly Ser Pro Ala Pro Ala Asn Pro Gly Arg  
 805 810 815  
 Ala Pro Val Ala Ser Lys Gly Ala Pro Arg Arg Ala Asn Gly Pro Leu  
 820 825 830  
 Pro Pro Ser \*  
 835

<210> 1482  
 <211> 434  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 1482

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Met Asn Lys Ser Arg Trp Gln Ser Arg Arg Arg His Gly Arg Arg Ser
 1          5          10          15
His Gln Gln Asn Pro Trp Phe Arg Leu Arg Asp Ser Glu Asp Arg Ser
          20          25          30
Asp Ser Arg Ala Ala Gln Pro Ala His Asp Ser Gly His Gly Asp Asp
          35          40          45
Glu Ser Pro Ser Thr Ser Ser Gly Thr Ala Gly Thr Ser Ser Val Pro
          50          55          60
Glu Leu Pro Gly Phe Tyr Phe Asp Pro Glu Lys Lys Arg Tyr Phe Arg
          65          70          75          80
Leu Leu Pro Gly His Asn Asn Cys Asn Pro Leu Thr Lys Glu Ser Ile
          85          90          95
Arg Gln Lys Glu Met Glu Ser Lys Arg Leu Arg Leu Leu Gln Glu Glu
          100          105          110
Asp Arg Arg Lys Lys Ile Ala Arg Met Gly Phe Asn Ala Ser Ser Met
          115          120          125
Leu Arg Lys Ser Gln Leu Gly Phe Leu Asn Val Thr Asn Tyr Cys His
          130          135          140
Leu Ala His Glu Leu Arg Leu Ser Cys Met Glu Arg Lys Lys Val Gln
          145          150          155          160
Ile Arg Ser Met Asp Pro Ser Ala Leu Ala Ser Asp Arg Phe Asn Leu
          165          170          175
Ile Leu Ala Asp Thr Asn Ser Asp Arg Leu Phe Thr Val Asn Asp Val
          180          185          190
Thr Val Gly Gly Ser Lys Tyr Gly Ile Ile Asn Leu Gln Ser Leu Lys
          195          200          205
Thr Pro Thr Leu Lys Val Phe Met His Glu Asn Leu Tyr Phe Thr Asn
          210          215          220
Arg Lys Val Asn Ser Val Cys Trp Ala Ser Leu Asn His Leu Asp Ser
          225          230          235          240
His Ile Leu Leu Cys Leu Met Gly Leu Ala Glu Thr Pro Gly Cys Ala
          245          250          255
Thr Leu Leu Pro Ala Ser Leu Phe Val Asn Ser His Pro Gly Ile Asp
          260          265          270
Arg Pro Gly Met Leu Cys Ser Phe Arg Ile Pro Gly Ala Trp Ser Cys
          275          280          285
Ala Trp Ser Leu Asn Ile Gln Ala Asn Asn Cys Phe Ser Thr Gly Leu
          290          295          300
Ser Arg Arg Val Leu Leu Thr Asn Val Val Thr Gly His Arg Gln Ser
          305          310          315          320
Phe Gly Thr Asn Ser Asp Val Leu Ala Gln Gln Phe Ala Phe Met Ala
          325          330          335
Pro Leu Leu Phe Asn Gly Cys Arg Ser Gly Glu Ile Phe Ala Ile Asp
          340          345          350
Leu Arg Cys Gly Asn Gln Gly Lys Gly Trp Lys Ala Thr Arg Leu Phe
          355          360          365
His Asp Ser Ala Val Thr Ser Val Arg Ile Leu Gln Asp Glu Gln Tyr
          370          375          380
Leu Met Ala Ser Asp Met Ala Gly Lys Ile Lys Leu Trp Asp Leu Arg
          385          390          395          400
Thr Thr Lys Cys Val Arg Gln Tyr Glu Gly His Val Asn Glu Tyr Ala
          405          410          415
Tyr Leu Pro Leu His Val His Glu Glu Gly Ile Leu Val Ala Gly
          420          425          430
Thr *
433

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&lt;210&gt; 1483

&lt;211&gt; 1998

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1483

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Met Leu Ser His Gly Ala Gly Leu Ala Leu Trp Ile Thr Leu Ser Leu
 1          5          10          15
Leu Gln Thr Gly Leu Ala Glu Pro Glu Arg Cys Asn Phe Thr Leu Ala
          20          25          30
Glu Ser Lys Ala Ser Ser His Ser Val Ser Ile Gln Trp Arg Ile Leu
          35          40          45
Gly Ser Pro Cys Asn Phe Ser Leu Ile Tyr Ser Ser Asp Thr Leu Gly
          50          55          60
Ala Ala Leu Cys Pro Thr Phe Arg Ile Asp Asn Thr Thr Tyr Gly Cys
          65          70          75          80
Asn Leu Gln Asp Leu Gln Ala Gly Thr Ile Tyr Asn Phe Lys Ile Ile
          85          90          95
Ser Leu Asp Glu Glu Arg Thr Val Val Leu Gln Thr Asp Pro Leu Pro
          100          105          110
Pro Ala Arg Phe Gly Val Ser Lys Glu Lys Thr Thr Ser Thr Gly Leu
          115          120          125
His Val Trp Trp Thr Pro Ser Ser Gly Lys Val Thr Ser Tyr Glu Val
          130          135          140
Gln Leu Phe Asp Glu Asn Asn Gln Lys Ile Gln Gly Val Gln Ile Gln
          145          150          155          160
Glu Ser Thr Ser Trp Asn Glu Tyr Thr Phe Phe Asn Leu Thr Ala Gly
          165          170          175
Ser Lys Tyr Asn Ile Ala Ile Thr Ala Val Ser Gly Gly Lys Arg Ser
          180          185          190
Phe Ser Val Tyr Thr Asn Gly Ser Thr Val Pro Ser Pro Val Lys Asp
          195          200          205
Ile Gly Ile Ser Thr Lys Ala Asn Ser Leu Leu Ile Ser Trp Ser His
          210          215          220
Gly Ser Gly Asn Val Glu Arg Tyr Arg Leu Met Leu Met Asp Lys Gly
          225          230          235          240
Ile Leu Val His Gly Gly Val Val Asp Lys His Ala Thr Ser Tyr Ala
          245          250          255
Phe His Gly Leu Ser Pro Gly Tyr Leu Tyr Asn Leu Thr Val Met Thr
          260          265          270
Glu Ala Ala Gly Leu Gln Asn Tyr Arg Trp Lys Leu Val Arg Thr Ala
          275          280          285
Pro Met Glu Val Ser Asn Leu Lys Val Thr Asn Asp Gly Ser Leu Thr
          290          295          300
Ser Leu Lys Val Lys Trp Gln Arg Pro Pro Gly Asn Val Asp Ser Tyr
          305          310          315          320
Asn Ile Thr Leu Ser His Lys Gly Thr Ile Lys Glu Ser Arg Val Leu
          325          330          335
Ala Pro Trp Ile Thr Glu Thr His Phe Lys Glu Leu Val Pro Gly Arg
          340          345          350
Leu Tyr Gln Val Thr Val Ser Cys Val Ser Gly Glu Leu Ser Ala Gln
          355          360          365
Lys Met Ala Val Gly Arg Thr Phe Pro Asp Lys Val Ala Asn Leu Glu
          370          375          380
Ala Asn Asn Asn Gly Arg Met Arg Ser Leu Val Val Ser Trp Ser Pro
          385          390          395          400
Pro Ala Gly Asp Trp Glu Gln Tyr Arg Ile Leu Leu Phe Asn Asp Ser
          405          410          415
Val Val Leu Leu Asn Ile Thr Val Gly Lys Glu Glu Thr Gln Tyr Val
          420          425          430
Met Asp Gly Thr Gly Leu Val Pro Gly Arg Gln Tyr Glu Val Glu Val
          435          440          445
Ile Val Glu Ser Gly Asn Leu Lys Asn Ser Glu Arg Cys Gln Gly Arg
          450          455          460
Thr Val Pro Leu Ala Val Leu Gln Leu Arg Val Lys His Ala Asn Glu
          465          470          475          480

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Thr Ser Leu Ser Ile Met Trp Gln Thr Pro Val Ala Glu Trp Glu Lys  
 485 490 495  
 Tyr Ile Ile Ser Leu Ala Asp Arg Asp Leu Leu Leu Ile His Lys Ser  
 500 505 510  
 Leu Ser Lys Asp Ala Lys Glu Phe Thr Phe Thr Asp Leu Val Pro Gly  
 515 520 525  
 Arg Lys Tyr Met Ala Thr Val Thr Ser Ile Ser Gly Asp Leu Lys Asn  
 530 535 540  
 Ser Ser Ser Val Lys Gly Arg Thr Val Pro Ala Gln Val Thr Asp Leu  
 545 550 555 560  
 His Val Ala Asn Gln Gly Met Thr Ser Ser Leu Phe Thr Asn Trp Thr  
 565 570 575  
 Gln Ala Gln Gly Asp Val Glu Phe Tyr Gln Val Leu Leu Ile His Glu  
 580 585 590  
 Asn Val Val Ile Lys Asn Glu Ser Ile Ser Ser Glu Thr Ser Arg Tyr  
 595 600 605  
 Ser Phe His Ser Leu Lys Ser Gly Ser Leu Tyr Ser Val Val Val Thr  
 610 615 620  
 Thr Val Ser Gly Gly Ile Ser Ser Arg Gln Val Val Val Glu Gly Arg  
 625 630 635 640  
 Thr Val Pro Ser Ser Val Ser Gly Val Thr Val Asn Asn Ser Gly Arg  
 645 650 655  
 Asn Asp Tyr Leu Ser Val Ser Trp Leu Leu Ala Pro Gly Asp Val Asp  
 660 665 670  
 Asn Tyr Glu Val Thr Leu Ser His Asp Gly Lys Val Val Gln Ser Leu  
 675 680 685  
 Val Ile Ala Lys Ser Val Arg Glu Cys Ser Phe Ser Ser Leu Thr Pro  
 690 695 700  
 Gly Arg Leu Tyr Thr Val Thr Ile Thr Thr Arg Ser Gly Lys Tyr Glu  
 705 710 715 720  
 Asn His Ser Phe Ser Gln Glu Arg Thr Val Pro Asp Lys Val Gln Gly  
 725 730 735  
 Val Ser Val Ser Asn Ser Ala Arg Ser Asp Tyr Leu Arg Val Ser Trp  
 740 745 750  
 Val His Ala Thr Gly Asp Phe Asp His Tyr Glu Val Thr Ile Lys Asn  
 755 760 765  
 Lys Asn Asn Phe Ile Gln Thr Lys Ser Ile Pro Lys Ser Glu Asn Glu  
 770 775 780  
 Cys Val Phe Val Gln Leu Val Pro Gly Arg Leu Tyr Ser Val Thr Val  
 785 790 795 800  
 Thr Thr Lys Ser Gly Gln Tyr Glu Ala Asn Glu Gln Gly Asn Gly Arg  
 805 810 815  
 Thr Ile Pro Glu Pro Val Lys Asp Leu Thr Leu Arg Asn Arg Ser Thr  
 820 825 830  
 Glu Asp Leu His Val Thr Trp Ser Gly Ala Asn Gly Asp Val Asp Gln  
 835 840 845  
 Tyr Glu Ile Gln Leu Leu Phe Asn Asp Met Lys Val Phe Pro Pro Phe  
 850 855 860  
 His Leu Val Asn Thr Ala Thr Glu Tyr Arg Phe Thr Ser Leu Thr Pro  
 865 870 875 880  
 Gly Arg Gln Tyr Lys Ile Leu Val Leu Thr Ile Ser Gly Asp Val Gln  
 885 890 895  
 Gln Ser Ala Phe Ile Glu Gly Phe Thr Val Pro Ser Ala Val Lys Asn  
 900 905 910  
 Ile His Ile Ser Pro Asn Gly Ala Thr Asp Ser Leu Thr Val Asn Trp  
 915 920 925  
 Thr Pro Gly Gly Gly Asp Val Asp Ser Tyr Thr Val Ser Ala Phe Arg  
 930 935 940  
 His Ser Gln Lys Val Asp Ser Gln Thr Ile Pro Lys His Val Phe Glu  
 945 950 955 960  
 His Thr Phe His Arg Leu Glu Ala Gly Glu Gln Tyr Gln Ile Met Ile  
 965 970 975  
 Ala Ser Val Ser Gly Ser Leu Lys Asn Gln Ile Asn Val Val Gly Arg  
 980 985 990

Thr Val Pro Ala Ser Val Gln Gly Val Ile Ala Asp Asn Ala Tyr Ser  
 995 1000 1005  
 Ser Tyr Ser Leu Ile Val Ser Trp Gln Lys Ala Ala Gly Val Ala Glu  
 1010 1015 1020  
 Arg Tyr Asp Ile Leu Leu Leu Thr Glu Asn Gly Ile Leu Leu Arg Asn  
 1025 1030 1035 1040  
 Thr Ser Glu Pro Ala Thr Thr Lys Gln His Lys Phe Glu Asp Leu Thr  
 1045 1050 1055  
 Pro Gly Lys Lys Tyr Lys Ile Gln Ile Leu Thr Val Ser Gly Gly Leu  
 1060 1065 1070  
 Phe Ser Lys Glu Ala Gln Thr Glu Gly Arg Thr Val Pro Ala Ala Val  
 1075 1080 1085  
 Thr Asp Leu Arg Ile Thr Glu Asn Ser Thr Arg His Leu Ser Phe Arg  
 1090 1095 1100  
 Trp Thr Ala Ser Glu Gly Glu Leu Ser Trp Tyr Asn Ile Phe Leu Tyr  
 1105 1110 1115 1120  
 Asn Pro Asp Gly Asn Leu Gln Glu Arg Ala Gln Val Asp Pro Leu Val  
 1125 1130 1135  
 Gln Ser Phe Ser Phe Gln Asn Leu Leu Gln Gly Arg Met Tyr Lys Met  
 1140 1145 1150  
 Val Ile Val Thr His Ser Gly Glu Leu Ser Asn Glu Ser Phe Ile Phe  
 1155 1160 1165  
 Gly Arg Thr Val Pro Ala Ser Val Ser His Leu Arg Gly Ser Asn Arg  
 1170 1175 1180  
 Asn Thr Thr Asp Ser Leu Trp Phe Asn Trp Ser Pro Ala Ser Gly Asp  
 1185 1190 1195 1200  
 Phe Asp Phe Tyr Glu Leu Ile Leu Tyr Asn Pro Asn Gly Thr Lys Lys  
 1205 1210 1215  
 Glu Asn Trp Lys Asp Lys Asp Leu Thr Glu Trp Arg Phe Gln Gly Leu  
 1220 1225 1230  
 Val Pro Gly Arg Lys Tyr Val Leu Trp Val Val Thr His Ser Gly Asp  
 1235 1240 1245  
 Leu Ser Asn Lys Val Thr Ala Glu Ser Arg Thr Ala Pro Ser Pro Pro  
 1250 1255 1260  
 Ser Leu Met Ser Phe Ala Asp Ile Ala Asn Thr Ser Leu Ala Ile Thr  
 1265 1270 1275 1280  
 Trp Lys Gly Pro Pro Asp Trp Thr Asp Tyr Asn Asp Phe Glu Leu Gln  
 1285 1290 1295  
 Trp Leu Pro Arg Asp Ala Leu Thr Val Phe Asn Pro Tyr Asn Asn Arg  
 1300 1305 1310  
 Lys Ser Glu Gly Arg Ile Val Tyr Gly Leu Arg Pro Gly Arg Ser Tyr  
 1315 1320 1325  
 Gln Phe Asn Val Lys Thr Val Ser Gly Asp Ser Trp Lys Thr Tyr Ser  
 1330 1335 1340  
 Lys Pro Ile Phe Gly Ser Val Arg Thr Lys Pro Asp Lys Ile Gln Asn  
 1345 1350 1355 1360  
 Leu His Cys Arg Pro Gln Asn Ser Thr Ala Ile Ala Cys Ser Trp Ile  
 1365 1370 1375  
 Pro Pro Asp Ser Asp Phe Asp Gly Tyr Ser Ile Glu Cys Arg Lys Met  
 1380 1385 1390  
 Asp Thr Gln Glu Val Glu Phe Ser Arg Lys Leu Glu Lys Glu Lys Ser  
 1395 1400 1405  
 Leu Leu Asn Ile Met Met Leu Val Pro His Lys Arg Tyr Leu Val Ser  
 1410 1415 1420  
 Ile Lys Val Gln Ser Ala Gly Met Thr Ser Glu Val Val Glu Asp Ser  
 1425 1430 1435 1440  
 Thr Ile Thr Met Ile Asp Arg Pro Pro Pro Pro Pro His Ile Arg  
 1445 1450 1455  
 Val Asn Glu Lys Asp Val Leu Ile Ser Lys Ser Ser Ile Asn Phe Thr  
 1460 1465 1470  
 Val Asn Cys Ser Trp Phe Ser Asp Thr Asn Gly Ala Val Lys Tyr Phe  
 1475 1480 1485  
 Thr Val Val Val Arg Glu Ala Asp Gly Ser Asp Glu Leu Lys Pro Glu  
 1490 1495 1500

Gln Gln His Pro Leu Pro Ser Tyr Leu Glu Tyr Arg His Asn Ala Ser  
 1505 1510 1515 1520  
 Ile Arg Val Tyr Gln Thr Asn Tyr Phe Ala Ser Lys Cys Ala Glu Asn  
 1525 1530 1535  
 Pro Asn Ser Asn Ser Lys Ser Phe Asn Ile Lys Leu Gly Ala Glu Met  
 1540 1545 1550  
 Glu Ser Leu Gly Gly Lys Cys Asp Pro Thr Gln Gln Lys Phe Cys Asp  
 1555 1560 1565  
 Gly Pro Leu Lys Pro His Thr Ala Tyr Arg Ile Ser Ile Arg Ala Phe  
 1570 1575 1580  
 Thr Gln Leu Phe Asp Glu Asp Leu Lys Glu Phe Thr Lys Pro Leu Tyr  
 1585 1590 1595 1600  
 Ser Asp Thr Phe Phe Ser Leu Pro Ile Thr Thr Glu Ser Glu Pro Leu  
 1605 1610 1615  
 Phe Gly Ala Ile Glu Gly Val Ser Ala Gly Leu Phe Leu Ile Gly Met  
 1620 1625 1630  
 Leu Val Ala Val Val Ala Leu Leu Ile Cys Arg Gln Lys Val Ser His  
 1635 1640 1645  
 Gly Arg Glu Arg Pro Ser Ala Arg Leu Ser Ile Arg Arg Asp Arg Pro  
 1650 1655 1660  
 Leu Ser Val His Leu Asn Leu Gly Gln Lys Gly Asn Arg Lys Thr Ser  
 1665 1670 1675 1680  
 Cys Pro Ile Lys Ile Asn Gln Phe Glu Gly His Phe Met Lys Leu Gln  
 1685 1690 1695  
 Ala Asp Ser Asn Tyr Leu Leu Ser Lys Glu Tyr Glu Glu Leu Lys Asp  
 1700 1705 1710  
 Val Gly Arg Asn Gln Ser Cys Asp Ile Ala Leu Leu Pro Glu Asn Arg  
 1715 1720 1725  
 Gly Lys Asn Arg Tyr Asn Asn Ile Leu Pro Tyr Asp Ala Thr Arg Val  
 1730 1735 1740  
 Lys Leu Ser Asn Val Asp Asp Asp Pro Cys Ser Asp Tyr Ile Asn Ala  
 1745 1750 1755 1760  
 Ser Tyr Ile Pro Gly Asn Asn Phe Arg Arg Glu Tyr Ile Val Thr Gln  
 1765 1770 1775  
 Gly Pro Leu Pro Gly Thr Lys Asp Asp Phe Trp Lys Met Val Trp Glu  
 1780 1785 1790  
 Gln Asn Val His Asn Ile Val Met Val Thr Gln Cys Val Glu Lys Gly  
 1795 1800 1805  
 Arg Val Lys Cys Asp His Tyr Trp Pro Ala Asp Gln Asp Ser Leu Tyr  
 1810 1815 1820  
 Tyr Gly Asp Leu Ile Leu Gln Met Leu Ser Glu Ser Val Leu Pro Glu  
 1825 1830 1835 1840  
 Trp Thr Ile Arg Glu Phe Lys Ile Cys Gly Glu Glu Gln Leu Asp Ala  
 1845 1850 1855  
 His Arg Leu Ile Arg His Phe His Tyr Thr Val Trp Pro Asp His Gly  
 1860 1865 1870  
 Val Pro Glu Thr Thr Gln Ser Leu Ile Gln Phe Val Arg Thr Val Arg  
 1875 1880 1885  
 Asp Tyr Ile Asn Arg Ser Pro Gly Ala Gly Pro Thr Val Val His Cys  
 1890 1895 1900  
 Ser Ala Gly Val Gly Arg Thr Gly Thr Phe Ile Ala Leu Asp Arg Ile  
 1905 1910 1915 1920  
 Leu Gln Gln Leu Asp Ser Lys Asp Ser Val Asp Ile Tyr Gly Ala Val  
 1925 1930 1935  
 His Asp Leu Arg Leu His Arg Val His Met Val Gln Thr Glu Cys Gln  
 1940 1945 1950  
 Tyr Val Tyr Leu His Gln Cys Val Arg Asp Val Leu Arg Ala Arg Lys  
 1955 1960 1965  
 Leu Arg Ser Glu Gln Glu Asn Pro Leu Phe Pro Ile Tyr Glu Asn Val  
 1970 1975 1980  
 Asn Pro Glu Tyr His Arg Asp Pro Val Tyr Ser Arg His \*  
 1985 1990 1995 1997

<210> 1484  
 <211> 330  
 <212> PRT  
 <213> Homo sapiens

<400> 1484  
 Met Ala Ala Gln Tyr Gly Ser Met Ser Phe Asn Pro Ser Thr Pro Gly  
 1 5 10 15  
 Ala Ser Tyr Gly Pro Gly Arg Gln Glu Pro Arg Asn Ser Gln Leu Arg  
 20 25 30  
 Ile Val Leu Val Gly Lys Thr Gly Ala Gly Lys Ser Ala Thr Gly Asn  
 35 40 45  
 Ser Ile Leu Gly Arg Lys Val Phe His Ser Gly Thr Ala Ala Lys Ser  
 50 55 60  
 Ile Thr Lys Lys Cys Glu Lys Arg Ser Ser Ser Trp Lys Glu Thr Glu  
 65 70 75 80  
 Leu Val Val Val Asp Thr Pro Gly Ile Phe Asp Thr Glu Val Pro Asn  
 85 90 95  
 Ala Glu Thr Ser Lys Glu Ile Ile Arg Cys Ile Leu Leu Thr Ser Pro  
 100 105 110  
 Gly Pro His Ala Leu Leu Leu Val Val Pro Leu Gly Arg Tyr Thr Glu  
 115 120 125  
 Glu Glu His Lys Ala Thr Glu Lys Ile Leu Lys Met Phe Gly Glu Arg  
 130 135 140  
 Ala Arg Ser Phe Met Ile Leu Ile Phe Thr Arg Lys Asp Asp Leu Gly  
 145 150 155 160  
 Asp Thr Asn Leu His Asp Tyr Leu Arg Glu Ala Pro Glu Asp Ile Gln  
 165 170 175  
 Asp Leu Met Asp Ile Phe Gly Asp Arg Tyr Cys Ala Leu Asn Asn Lys  
 180 185 190  
 Ala Thr Gly Ala Glu Gln Glu Ala Gln Arg Ala Gln Leu Leu Gly Leu  
 195 200 205  
 Ile Gln Arg Val Val Arg Glu Asn Lys Glu Gly Cys Tyr Thr Asn Arg  
 210 215 220  
 Met Tyr Gln Arg Ala Glu Glu Glu Ile Gln Lys Gln Thr Gln Ala Met  
 225 230 235 240  
 Gln Glu Leu His Arg Val Glu Leu Glu Arg Glu Lys Ala Arg Ile Arg  
 245 250 255  
 Glu Glu Tyr Glu Glu Lys Ile Arg Lys Leu Glu Asp Lys Val Glu Gln  
 260 265 270  
 Glu Lys Arg Lys Lys Gln Met Glu Lys Lys Leu Ala Glu Gln Glu Ala  
 275 280 285  
 His Tyr Ala Val Arg Gln Gln Arg Ala Arg Thr Glu Val Glu Ser Lys  
 290 295 300  
 Asp Gly Ile Leu Glu Leu Ile Met Thr Ala Leu Gln Ile Ala Ser Phe  
 305 310 315 320  
 Ile Leu Leu Arg Leu Phe Ala Glu Asp \*  
 325 329

<210> 1485  
 <211> 706  
 <212> PRT  
 <213> Homo sapiens

<400> 1485  
 Met Pro Leu Arg Ile His Val Leu Leu Gly Leu Ala Ile Thr Thr Leu  
 1 5 10 15  
 Val Gln Ala Val Asp Lys Lys Val Asp Cys Pro Arg Leu Cys Thr Cys  
 20 25 30

Glu	Ile	Arg	Pro	Trp	Phe	Thr	Pro	Arg	Ser	Ile	Tyr	Met	Glu	Ala	Ser
	35						40					45			
Thr	Val	Asp	Cys	Asn	Asp	Leu	Gly	Leu	Leu	Thr	Phe	Pro	Ala	Arg	Leu
	50					55					60				
Pro	Ala	Asn	Thr	Gln	Ile	Leu	Leu	Leu	Gln	Thr	Asn	Asn	Ile	Ala	Lys
	65				70					75				80	
Ile	Glu	Tyr	Ser	Thr	Asp	Phe	Pro	Val	Asn	Leu	Thr	Gly	Leu	Asp	Leu
				85					90					95	
Ser	Gln	Asn	Asn	Leu	Ser	Ser	Val	Thr	Asn	Ile	Asn	Val	Lys	Lys	Met
			100					105					110		
Pro	Gln	Leu	Leu	Ser	Val	Tyr	Leu	Glu	Glu	Asn	Lys	Leu	Thr	Glu	Leu
		115					120					125			
Pro	Glu	Lys	Cys	Leu	Ser	Glu	Leu	Ser	Asn	Leu	Gln	Glu	Leu	Tyr	Ile
	130					135					140				
Asn	His	Asn	Leu	Leu	Ser	Thr	Ile	Ser	Pro	Gly	Ala	Phe	Ile	Gly	Leu
	145				150					155					160
His	Asn	Leu	Leu	Arg	Leu	His	Leu	Asn	Ser	Asn	Arg	Leu	Gln	Met	Ile
				165					170					175	
Asn	Ser	Lys	Trp	Phe	Asp	Ala	Leu	Pro	Asn	Leu	Glu	Ile	Leu	Met	Ile
			180					185					190		
Gly	Glu	Asn	Pro	Ile	Ile	Arg	Ile	Lys	Asp	Met	Asn	Phe	Lys	Pro	Leu
	195						200					205			
Ile	Asn	Leu	Arg	Ser	Leu	Val	Ile	Ala	Gly	Ile	Asn	Leu	Thr	Glu	Ile
	210					215					220				
Pro	Asp	Asn	Ala	Leu	Val	Gly	Leu	Glu	Asn	Leu	Glu	Ser	Ile	Ser	Phe
	225				230					235				240	
Tyr	Asp	Asn	Arg	Leu	Ile	Lys	Val	Pro	His	Val	Ala	Leu	Gln	Lys	Val
			245						250					255	
Val	Asn	Leu	Lys	Phe	Leu	Asp	Leu	Asn	Lys	Asn	Pro	Ile	Asn	Arg	Ile
		260					265					270			
Arg	Arg	Gly	Asp	Phe	Ser	Asn	Met	Leu	His	Leu	Lys	Glu	Leu	Gly	Ile
		275					280					285			
Asn	Asn	Met	Pro	Glu	Leu	Ile	Ser	Ile	Asp	Ser	Leu	Ala	Val	Asp	Asn
	290				295						300				
Leu	Pro	Asp	Leu	Arg	Lys	Ile	Glu	Ala	Thr	Asn	Asn	Pro	Arg	Leu	Ser
	305				310					315				320	
Tyr	Ile	His	Pro	Asn	Ala	Phe	Phe	Arg	Leu	Pro	Lys	Leu	Glu	Ser	Leu
			325						330					335	
Met	Leu	Asn	Ser	Asn	Ala	Leu	Ser	Ala	Leu	Tyr	His	Gly	Thr	Ile	Glu
		340					345						350		
Ser	Leu	Pro	Asn	Leu	Lys	Glu	Ile	Ser	Ile	His	Ser	Asn	Pro	Ile	Arg
		355					360					365			
Cys	Asp	Cys	Val	Ile	Arg	Trp	Met	Asn	Met	Asn	Lys	Thr	Asn	Ile	Arg
	370					375					380				
Phe	Met	Glu	Pro	Asp	Ser	Leu	Phe	Cys	Val	Asp	Pro	Pro	Glu	Phe	Gln
	385				390					395				400	
Gly	Gln	Asn	Val	Arg	Gln	Val	His	Phe	Arg	Asp	Met	Met	Glu	Ile	Cys
			405						410					415	
Leu	Pro	Leu	Ile	Ala	Pro	Glu	Ser	Phe	Pro	Ser	Asn	Leu	Asn	Val	Glu
		420						425					430		
Ala	Gly	Ser	Tyr	Val	Ser	Phe	His	Cys	Arg	Ala	Thr	Ala	Glu	Pro	Gln
		435					440					445			
Pro	Glu	Ile	Tyr	Trp	Ile	Thr	Pro	Ser	Gly	Gln	Lys	Leu	Leu	Pro	Asn
	450					455					460				
Thr	Leu	Thr	Asp	Lys	Phe	Tyr	Val	His	Ser	Glu	Gly	Thr	Leu	Asp	Ile
	465				470					475				480	
Asn	Gly	Val	Thr	Pro	Lys	Glu	Gly	Gly	Leu	Tyr	Thr	Cys	Ile	Ala	Thr
			485						490					495	
Asn	Leu	Val	Gly	Ala	Asp	Leu	Lys	Ser	Val	Met	Ile	Lys	Val	Asp	Gly
		500						505					510		
Ser	Phe	Pro	Gln	Asp	Asn	Asn	Gly	Ser	Leu	Asn	Ile	Lys	Ile	Arg	Asp
		515					520					525			
Ile	Gln	Ala	Asn	Ser	Val	Leu	Val	Ser	Trp	Lys	Ala	Ser	Ser	Lys	Ile
	530					535					540				

Leu Lys Ser Ser Val Lys Trp Thr Ala Phe Val Lys Thr Glu Asn Ser  
 545 550 555 560  
 His Ala Ala Gln Ser Ala Arg Ile Pro Ser Asp Val Lys Val Tyr Asn  
 565 570 575  
 Leu Thr His Leu Asn Pro Ser Thr Glu Tyr Lys Ile Cys Ile Asp Ile  
 580 585 590  
 Pro Thr Ile Tyr Gln Lys Asn Arg Lys Lys Cys Val Asn Val Thr Thr  
 595 600 605  
 Lys Gly Leu His Pro Asp Gln Lys Glu Tyr Glu Lys Asn Asn Thr Thr  
 610 615 620  
 Thr Leu Met Ala Cys Leu Gly Gly Leu Leu Gly Ile Ile Gly Val Ile  
 625 630 635 640  
 Cys Leu Ile Ser Cys Leu Ser Pro Glu Met Asn Cys Asp Gly Gly His  
 645 650 655  
 Ser Tyr Val Arg Asn Tyr Leu Gln Lys Pro Thr Phe Ala Leu Gly Glu  
 660 665 670  
 Leu Tyr Pro Pro Leu Ile Asn Leu Trp Glu Ala Gly Lys Glu Lys Ser  
 675 680 685  
 Thr Ser Leu Lys Val Lys Ala Thr Val Ile Gly Leu Pro Thr Asn Met  
 690 695 700  
 Ser \*  
 705

<210> 1486  
 <211> 517  
 <212> PRT  
 <213> Homo sapiens

<400> 1486  
 Met Lys Ile Gln Pro Pro Phe Glu Asp Leu Phe Asp Thr Ala Glu Glu  
 1 5 10 15  
 Tyr Ile Leu Leu Leu Leu Glu Pro Trp Thr Lys Met Val Lys Ser  
 20 25 30  
 Asp Gln Ile Ala Tyr Lys Lys Val Glu Leu Val Glu Glu Thr Arg Gln  
 35 40 45  
 Leu Asp Ser Thr Tyr Phe Arg Lys Leu Gln Ala Leu His Lys Glu Thr  
 50 55 60  
 Phe Ser Lys Lys Ala Glu Asp Thr Thr Cys Glu Ile Gly Thr Gly Ile  
 65 70 75 80  
 Leu Ser Leu Ser Asn Val Ser Lys Arg Thr Glu Tyr Trp Asp Asn Val  
 85 90 95  
 Pro Ala Glu Tyr Lys His Phe Lys Phe Ser Asp Leu Leu Asn Asn Lys  
 100 105 110  
 Leu Glu Phe Glu His Phe Arg Gln Phe Leu Glu Thr His Ser Ser Ser  
 115 120 125  
 Met Asp Leu Met Cys Trp Thr Asp Ile Glu Gln Phe Arg Arg Ile Thr  
 130 135 140  
 Tyr Arg Asp Arg Asn Gln Arg Lys Ala Lys Ser Ile Tyr Ile Lys Asn  
 145 150 155 160  
 Lys Tyr Leu Asn Lys Lys Tyr Phe Phe Gly Pro Asn Ser Pro Ala Ser  
 165 170 175  
 Leu Tyr Gln Gln Asn Gln Val Met His Leu Ser Gly Gly Trp Gly Lys  
 180 185 190  
 Ile Leu His Glu Gln Leu Asp Ala Pro Val Leu Val Glu Ile Gln Lys  
 195 200 205  
 His Val Gln Asn Arg Leu Glu Asn Val Trp Leu Pro Leu Phe Leu Ala  
 210 215 220  
 Ser Glu Gln Phe Ala Ala Arg Gln Lys Ile Lys Val Gln Met Lys Asp  
 225 230 235 240  
 Ile Ala Glu Glu Leu Leu Leu Gln Lys Ala Glu Lys Lys Ile Gly Val  
 245 250 255

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Trp Lys Pro Val Glu Ser Lys Trp Ile Ser Ser Ser Cys Lys Ile Ile
      260      265      270
Ala Phe Arg Lys Ala Leu Leu Asn Pro Val Thr Ser Arg Gln Phe Gln
      275      280      285
Arg Phe Val Ala Leu Lys Gly Asp Leu Leu Glu Asn Gly Leu Leu Phe
      290      295      300
Trp Gln Glu Val Gln Lys Tyr Lys Asp Leu Cys His Ser His Cys Asp
      305      310      315      320
Glu Ser Val Ile Gln Lys Lys Ile Thr Thr Ile Ile Asn Cys Phe Ile
      325      330      335
Asn Ser Ser Ile Pro Pro Ala Leu Gln Ile Asp Ile Pro Val Glu Gln
      340      345      350
Ala Gln Lys Ile Ile Glu His Arg Lys Glu Leu Gly Pro Tyr Val Phe
      355      360      365
Arg Glu Ala Gln Met Thr Ile Phe Gly Val Leu Phe Lys Phe Trp Pro
      370      375      380
Gln Phe Cys Glu Phe Arg Lys Asn Leu Thr Asp Glu Asn Ile Met Ser
      385      390      395      400
Val Leu Glu Arg Arg Gln Glu Tyr Asn Lys Gln Lys Lys Lys Leu Ala
      405      410      415
Val Leu Glu Asp Glu Lys Ser Gly Lys Asp Gly Ile Lys Gln Tyr Ala
      420      425      430
Asn Thr Ser Val Pro Ala Ile Lys Thr Ala Leu Leu Ser Asp Ser Phe
      435      440      445
Leu Gly Leu Gln Pro Tyr Gly Arg Gln Pro Thr Trp Cys Tyr Ser Lys
      450      455      460
Tyr Ile Glu Ala Leu Glu Gln Glu Arg Ile Leu Leu Lys Ile Gln Glu
      465      470      475      480
Glu Leu Glu Lys Lys Leu Phe Ala Gly Leu Gln Pro Leu Thr Asn Phe
      485      490      495
Lys Ala Ser Ser Ser Thr Met Ser Leu Lys Lys Asn Met Ser Ala His
      500      505      510
Ser Ser Gln Lys *
      515 516

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<210> 1487
<211> 1027
<212> PRT
<213> Homo sapiens

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<400> 1487
Met Met Ser Phe Gly Gly Ala Asp Ala Leu Leu Gly Ala Pro Phe Ala
  1      5      10      15
Pro Leu His Gly Gly Ser Leu His Tyr Ala Leu Ala Arg Lys Gly
      20      25      30
Gly Ala Gly Gly Thr Arg Ser Ala Ala Gly Ser Ser Ser Gly Phe His
      35      40      45
Ser Trp Thr Arg Thr Ser Val Ser Ser Val Ser Ala Ser Pro Ser Arg
      50      55      60
Phe Arg Gly Ala Gly Ala Ala Ser Ser Thr Asp Ser Leu Asp Thr Leu
      65      70      75      80
Ser Asn Gly Pro Glu Gly Cys Met Val Ala Val Ala Thr Ser Arg Ser
      85      90      95
Glu Lys Glu Gln Leu Gln Ala Leu Asn Asp Arg Phe Ala Gly Tyr Ile
      100      105      110
Asp Lys Val Arg Gln Leu Glu Ala His Asn Arg Ser Leu Glu Gly Glu
      115      120      125
Ala Ala Ala Leu Arg Gln Gln Gln Ala Gly Arg Ser Ala Met Gly Glu
      130      135      140
Leu Tyr Glu Arg Glu Val Arg Glu Met Arg Gly Ala Val Leu Arg Leu
      145      150      155      160

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Gly Ala Ala Arg Gly Gln Leu Arg Leu Glu Gln Glu His Leu Leu Glu  
 165 170 175  
 Asp Ile Ala His Val Arg Gln Arg Leu Asp Asp Glu Ala Arg Gln Arg  
 180 185 190  
 Glu Glu Ala Glu Ala Ala Ala Arg Ala Leu Ala Arg Phe Ala Gln Glu  
 195 200 205  
 Ala Glu Ala Ala Arg Val Asp Leu Gln Lys Lys Ala Gln Ala Leu Gln  
 210 215 220  
 Glu Glu Cys Gly Tyr Leu Arg Arg His His Gln Glu Glu Val Gly Glu  
 225 230 235 240  
 Leu Leu Gly Gln Ile Gln Gly Ser Gly Ala Ala Gln Ala Gln Met Gln  
 245 250 255  
 Ala Glu Thr Arg Asp Ala Leu Lys Cys Asp Val Thr Ser Ala Leu Arg  
 260 265 270  
 Glu Ile Arg Ala Gln Leu Glu Gly His Ala Val Gln Ser Thr Leu Gln  
 275 280 285  
 Ser Glu Glu Trp Phe Arg Val Arg Leu Asp Arg Leu Ser Glu Ala Ala  
 290 295 300  
 Lys Val Asn Thr Asp Ala Met Arg Ser Ala Gln Glu Glu Ile Thr Glu  
 305 310 315 320  
 Tyr Arg Arg Gln Leu Gln Ala Arg Thr Thr Glu Leu Glu Ala Leu Lys  
 325 330 335  
 Ser Thr Lys Asp Ser Leu Glu Arg Gln Arg Ser Glu Leu Glu Asp Arg  
 340 345 350  
 His Gln Ala Asp Ile Ala Ser Tyr Gln Glu Ala Ile Gln Gln Leu Asp  
 355 360 365  
 Ala Glu Leu Arg Asn Thr Lys Trp Glu Met Ala Ala Gln Leu Arg Glu  
 370 375 380  
 Tyr Gln Asp Leu Leu Asn Val Lys Met Ala Leu Asp Ile Glu Ile Ala  
 385 390 395 400  
 Ala Tyr Arg Lys Leu Leu Glu Gly Glu Glu Cys Arg Ile Gly Phe Gly  
 405 410 415  
 Pro Ile Pro Phe Ser Leu Pro Glu Gly Leu Pro Lys Ile Pro Ser Val  
 420 425 430  
 Ser Thr His Ile Lys Val Lys Ser Glu Glu Lys Ile Lys Val Val Glu  
 435 440 445  
 Lys Ser Glu Lys Glu Thr Val Ile Val Glu Glu Gln Thr Glu Glu Thr  
 450 455 460  
 Gln Val Thr Glu Glu Val Thr Glu Glu Glu Glu Lys Glu Ala Lys Glu  
 465 470 475 480  
 Glu Glu Gly Lys Glu Glu Glu Gly Gly Glu Glu Glu Glu Ala Glu Gly  
 485 490 495  
 Gly Glu Glu Glu Thr Lys Ser Pro Pro Val Glu Glu Ala Ala Ser Pro  
 500 505 510  
 Glu Lys Glu Ala Lys Ser Pro Val Lys Glu Glu Ala Lys Ser Pro Ala  
 515 520 525  
 Glu Ala Lys Ser Pro Glu Lys Glu Glu Ala Lys Ser Pro Ala Glu Val  
 530 535 540  
 Lys Ser Pro Glu Lys Ala Lys Ser Pro Ala Lys Glu Glu Ala Lys Ser  
 545 550 555 560  
 Pro Pro Glu Ala Lys Ser Pro Glu Lys Glu Glu Ala Lys Ser Pro Ala  
 565 570 575  
 Glu Val Lys Ser Pro Glu Lys Ala Lys Ser Pro Ala Lys Glu Glu Ala  
 580 585 590  
 Lys Ser Pro Ala Glu Ala Lys Ser Pro Glu Lys Ala Lys Ser Pro Val  
 595 600 605  
 Lys Glu Glu Ala Lys Ser Pro Ala Glu Ala Lys Ser Pro Val Lys Glu  
 610 615 620  
 Glu Ala Lys Ser Pro Ala Glu Val Lys Ser Pro Glu Lys Ala Lys Ser  
 625 630 635 640  
 Pro Thr Lys Glu Glu Ala Lys Ser Pro Glu Lys Ala Lys Ser Pro Glu  
 645 650 655  
 Lys Ala Lys Ser Pro Glu Lys Glu Glu Ala Lys Ser Pro Glu Lys Ala  
 660 665 670



Lys Ser Pro Val Lys Ala Glu Ala Lys Ser Pro Glu Lys Ala Lys Ser  
 675 680 685  
 Pro Val Lys Ala Glu Ala Lys Ser Pro Glu Lys Ala Lys Ser Pro Val  
 690 695 700  
 Lys Glu Glu Ala Lys Ser Pro Glu Lys Ala Lys Ser Pro Val Lys Glu  
 705 710 715 720  
 Glu Ala Lys Ser Pro Glu Lys Ala Lys Ser Pro Val Lys Glu Glu Ala  
 725 730 735  
 Lys Thr Pro Glu Lys Ala Lys Ser Pro Val Lys Glu Glu Ala Lys Ser  
 740 745 750  
 Pro Glu Lys Ala Lys Ser Pro Glu Lys Ala Lys Thr Leu Asp Val Lys  
 755 760 765  
 Ser Pro Glu Ala Lys Thr Pro Ala Lys Glu Glu Ala Arg Ser Pro Ala  
 770 775 780  
 Asp Lys Phe Pro Glu Lys Ala Lys Ser Pro Val Lys Glu Glu Val Lys  
 785 790 795 800  
 Ser Pro Glu Lys Ala Lys Ser Pro Leu Lys Glu Asp Ala Lys Ala Pro  
 805 810 815  
 Glu Lys Glu Ile Pro Lys Lys Glu Glu Val Lys Ser Pro Val Lys Glu  
 820 825 830  
 Glu Glu Lys Pro Gln Glu Val Lys Val Lys Glu Pro Pro Lys Lys Ala  
 835 840 845  
 Glu Glu Glu Lys Ala Pro Ala Thr Pro Lys Thr Glu Glu Lys Lys Asp  
 850 855 860  
 Ser Lys Lys Glu Glu Ala Pro Lys Lys Glu Ala Pro Lys Pro Lys Val  
 865 870 875 880  
 Glu Glu Lys Lys Glu Pro Ala Val Glu Lys Pro Lys Glu Ser Lys Val  
 885 890 895  
 Glu Ala Lys Lys Glu Glu Ala Glu Asp Lys Lys Lys Val Pro Thr Pro  
 900 905 910  
 Glu Lys Glu Ala Pro Ala Lys Val Glu Val Lys Glu Asp Ala Lys Pro  
 915 920 925  
 Lys Glu Lys Thr Glu Val Ala Lys Lys Glu Pro Asp Asp Ala Lys Ala  
 930 935 940  
 Lys Glu Pro Ser Lys Pro Ala Glu Lys Lys Glu Ala Ala Pro Glu Lys  
 945 950 955 960  
 Lys Asp Thr Lys Glu Glu Lys Ala Lys Lys Pro Glu Glu Lys Pro Lys  
 965 970 975  
 Thr Glu Ala Lys Ala Lys Glu Asp Asp Lys Thr Leu Ser Lys Glu Pro  
 980 985 990  
 Ser Lys Pro Lys Ala Glu Lys Ala Glu Lys Ser Ser Ser Thr Asp Gln  
 995 1000 1005  
 Lys Asp Ser Lys Pro Pro Glu Lys Ala Thr Glu Asp Lys Ala Ala Lys  
 1010 1015 1020  
 Gly Lys \*  
 10251026

<210> 1488  
 <211> 463  
 <212> PRT  
 <213> Homo sapiens

<400> 1488  
 Met Ser Ile Ala Gly Val Ala Ala Gln Glu Ile Arg Val Pro Leu Lys  
 1 5 10 15  
 Thr Gly Phe Leu His Asn Gly Arg Ala Met Gly Asn Met Arg Lys Thr  
 20 25 30  
 Tyr Trp Ser Ser Arg Ser Glu Phe Lys Asn Asn Phe Leu Asn Ile Asp  
 35 40 45  
 Pro Ile Thr Met Ala Tyr Ser Leu Asn Ser Ser Ala Gln Glu Arg Leu  
 50 55 60

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Ile Pro Leu Gly His Ala Ser Lys Ser Ala Pro Met Asn Gly His Cys
 65          70          75          80
Phe Ala Glu Asn Gly Pro Ser Gln Lys Ser Ser Leu Pro Pro Leu Leu
          85          90          95
Ile Pro Pro Ser Glu Asn Leu Gly Pro His Glu Glu Asp Gln Val Val
          100          105          110
Cys Gly Phe Lys Lys Leu Thr Val Asn Gly Val Cys Ala Ser Thr Pro
          115          120          125
Pro Leu Thr Pro Ile Lys Asn Ser Pro Ser Leu Phe Pro Cys Ala Pro
          130          135          140
Leu Cys Glu Arg Gly Ser Arg Pro Leu Pro Pro Leu Pro Ile Ser Glu
          145          150          155          160
Ala Leu Ser Leu Asp Thr Asp Cys Glu Val Glu Phe Leu Thr Ser
          165          170          175
Ser Asp Thr Asp Phe Leu Leu Glu Asp Ser Thr Leu Ser Asp Phe Lys
          180          185          190
Tyr Asp Val Pro Gly Arg Arg Ser Phe Arg Gly Cys Gly Gln Ile Asn
          195          200          205
Tyr Ala Tyr Phe Asp Thr Pro Ala Val Ser Ala Ala Asp Leu Ser Tyr
          210          215          220
Val Ser Asp Gln Asn Gly Gly Val Pro Asp Pro Asn Pro Pro Pro Pro
          225          230          235          240
Gln Thr His Arg Arg Leu Arg Arg Ser His Ser Gly Pro Ala Gly Ser
          245          250          255
Phe Asn Lys Pro Ala Ile Arg Ile Ser Asn Cys Cys Ile His Arg Ala
          260          265          270
Ser Pro Asn Ser Asp Glu Asp Lys Pro Glu Val Pro Pro Arg Val Pro
          275          280          285
Ile Pro Pro Arg Pro Val Lys Pro Asp Tyr Arg Arg Trp Ser Ala Glu
          290          295          300
Val Thr Ser Ser Thr Tyr Ser Asp Glu Asp Arg Pro Pro Lys Val Pro
          305          310          315          320
Pro Arg Glu Pro Leu Ser Pro Ser Asn Ser Arg Thr Pro Ser Pro Lys
          325          330          335
Ser Leu Pro Ser Tyr Leu Asn Gly Val Met Pro Pro Thr Gln Ser Phe
          340          345          350
Ala Pro Asp Pro Lys Tyr Val Ser Ser Lys Ala Leu Gln Arg Gln Asn
          355          360          365
Ser Glu Gly Ser Ala Ser Lys Val Pro Cys Ile Leu Pro Ile Ile Glu
          370          375          380
Asn Gly Lys Lys Val Ser Ser Thr His Tyr Tyr Leu Leu Pro Glu Arg
          385          390          395          400
Pro Pro Tyr Leu Asp Lys Tyr Glu Lys Phe Phe Arg Glu Ala Glu Glu
          405          410          415
Thr Asn Gly Gly Ala Gln Ile Gln Pro Leu Pro Ala Asp Cys Gly Ile
          420          425          430
Ser Ser Ala Thr Glu Lys Pro Asp Ser Lys Thr Lys Met Asp Leu Gly
          435          440          445
Gly His Val Lys Arg Lys His Leu Ser Tyr Val Val Ser Pro *
          450          455          460          462

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&lt;210&gt; 1489

&lt;211&gt; 1453

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1489

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Met Val Pro Ile Phe Ser Gly Arg Gln Lys His Val Ser Gly Ile Thr
 1          5          10          15
Asp Thr Glu Glu Glu Arg Ile Lys Glu Ala Ala Ala Tyr Ile Ala Gln
          20          25          30

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Arg Asn Leu Leu Ala Ser Glu Glu Gly Ile Thr Thr Pro Lys Gln Ser
      35      40      45
Thr Ala Ser Lys Gln Thr Thr Ala Ser Lys Gln Ser Thr Ala Ser Lys
      50      55      60
Gln Ser Thr Ala Ser Lys Gln Ser Thr Ala Ser Arg Gln Ser Thr Ala
      65      70      75      80
Ser Arg Gln Ser Val Val Ser Lys Gln Ala Thr Ser Ala Leu Gln Gln
      85      90      95
Glu Glu Thr Ser Glu Lys Lys Ser Arg Lys Val Val Ile Arg Gly Lys
      100      105      110
Ala Glu Arg Leu Ser Leu Arg Lys Thr Leu Glu Glu Thr Glu Thr Tyr
      115      120      125
His Ala Lys Leu Asn Glu Asp His Leu Leu His Ala Pro Glu Phe Ile
      130      135      140
Ile Lys Pro Arg Ser His Thr Val Trp Glu Lys Glu Asn Val Lys Leu
      145      150      155      160
His Cys Ser Ile Ala Gly Trp Pro Glu Pro Arg Val Thr Trp Tyr Lys
      165      170      175
Asn Gln Val Pro Ile Asn Val His Ala Asn Pro Gly Lys Tyr Ile Ile
      180      185      190
Glu Ser Arg Tyr Gly Met His Thr Leu Glu Ile Asn Ala Cys Asp Phe
      195      200      205
Glu Asp Thr Ala Gln Tyr Arg Ala Ser Ala Met Asn Val Lys Gly Glu
      210      215      220
Leu Ser Ala Tyr Ala Ser Val Val Val Lys Arg Tyr Lys Gly Glu Phe
      225      230      235      240
Asp Glu Thr Arg Phe His Ala Gly Ala Ser Thr Met Pro Leu Ser Phe
      245      250      255
Gly Val Thr Pro Tyr Gly Tyr Ala Ser Arg Phe Glu Ile His Phe Asp
      260      265      270
Asp Lys Phe Asp Val Ser Phe Gly Arg Glu Gly Glu Thr Met Ser Leu
      275      280      285
Gly Cys Arg Val Val Ile Thr Pro Glu Ile Lys His Phe Gln Pro Glu
      290      295      300
Ile Arg Trp Tyr Arg Asn Gly Val Pro Leu Ser Pro Ser Lys Trp Val
      305      310      315      320
Gln Thr Leu Trp Ser Gly Glu Arg Ala Thr Leu Thr Phe Ser His Leu
      325      330      335
Asn Lys Glu Asp Glu Gly Leu Tyr Thr Ile Arg Val Arg Met Gly Glu
      340      345      350
Tyr Tyr Glu Gln Tyr Ser Ala Tyr Val Phe Val Arg Asp Ala Asp Ala
      355      360      365
Glu Ile Glu Gly Ala Pro Ala Ala Pro Leu Asp Val Lys Cys Leu Glu
      370      375      380
Ala Asn Lys Asp Tyr Ile Ile Ile Ser Trp Lys Gln Pro Ala Val Asp
      385      390      395      400
Gly Gly Ser Pro Ile Leu Gly Tyr Phe Ile Asp Lys Cys Glu Val Gly
      405      410      415
Thr Asp Ser Trp Ser Gln Cys Asn Asp Thr Pro Val Lys Phe Ala Arg
      420      425      430
Phe Pro Val Thr Gly Leu Ile Glu Gly Arg Ser Tyr Ile Phe Arg Val
      435      440      445
Arg Ala Val Asn Lys Met Gly Ile Gly Phe Pro Ser Arg Val Ser Glu
      450      455      460
Ala Val Ala Ala Leu Asp Pro Ala Glu Lys Ala Arg Leu Lys Ser Pro
      465      470      475      480
Leu Ser Thr Leu Asp Trp Thr Val Ile Val Thr Glu Glu Glu Pro Ser
      485      490      495
Glu Gly Ile Val Pro Gly Pro Pro Thr Asp Leu Ser Val Thr Glu Ala
      500      505      510
Thr Arg Ser Tyr Val Val Leu Ser Trp Lys Pro Pro Gly Gln Arg Gly
      515      520      525
His Glu Gly Ile Met Tyr Phe Val Glu Lys Cys Glu Ala Gly Thr Glu
      530      535      540

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Asn	Trp	Gln	Arg	Val	Asn	Thr	Glu	Leu	Pro	Val	Lys	Ser	Pro	Arg	Phe
545					550					555					560
Ala	Leu	Phe	Asp	Leu	Ala	Glu	Gly	Lys	Ser	Tyr	Cys	Phe	Arg	Val	Arg
				565					570						575
Cys	Ser	Asn	Ser	Ala	Gly	Val	Gly	Glu	Pro	Ser	Glu	Ala	Thr	Glu	Val
			580					585					590		
Thr	Val	Val	Gly	Asp	Lys	Leu	Asp	Ile	Pro	Lys	Ala	Pro	Gly	Lys	Ile
	595					600						605			
Ile	Pro	Ser	Arg	Asn	Thr	Asp	Thr	Ser	Val	Val	Val	Ser	Trp	Glu	Glu
610					615						620				
Ser	Lys	Asp	Ala	Lys	Glu	Leu	Val	Gly	Tyr	Tyr	Ile	Glu	Ala	Ser	Val
625				630						635					640
Ala	Gly	Ser	Gly	Lys	Trp	Glu	Pro	Cys	Asn	Asn	Asn	Pro	Val	Lys	Gly
				645				650						655	
Ser	Arg	Phe	Thr	Cys	His	Gly	Leu	Val	Thr	Gly	Gln	Ser	Tyr	Ile	Phe
		660					665					670			
Arg	Val	Arg	Ala	Val	Asn	Ala	Ala	Gly	Leu	Ser	Glu	Tyr	Ser	Gln	Asp
	675					680						685			
Ser	Glu	Ala	Ile	Glu	Val	Lys	Ala	Ala	Ile	Ala	Pro	Pro	Ser	Pro	Pro
690					695						700				
Cys	Asp	Ile	Thr	Cys	Leu	Glu	Ser	Phe	Arg	Asp	Ser	Met	Val	Leu	Gly
705				710						715					720
Trp	Lys	Gln	Pro	Asp	Lys	Ile	Gly	Gly	Ala	Glu	Ile	Thr	Gly	Tyr	Tyr
			725					730						735	
Val	Asn	Tyr	Arg	Glu	Val	Ile	Asp	Gly	Val	Pro	Gly	Lys	Trp	Arg	Glu
	740						745						750		
Ala	Asn	Val	Lys	Ala	Val	Ser	Glu	Glu	Ala	Tyr	Lys	Ile	Ser	Asn	Leu
	755					760						765			
Lys	Glu	Asn	Met	Val	Tyr	Gln	Phe	Gln	Val	Ala	Ala	Met	Asn	Met	Ala
770					775						780				
Gly	Leu	Gly	Ala	Pro	Ser	Ala	Val	Ser	Glu	Cys	Phe	Lys	Cys	Glu	Glu
785				790						795					800
Trp	Thr	Ile	Ala	Val	Pro	Gly	Pro	Pro	His	Ser	Leu	Lys	Cys	Ser	Glu
			805					810						815	
Val	Arg	Lys	Asp	Ser	Leu	Val	Leu	Gln	Trp	Lys	Pro	Pro	Val	His	Ser
		820					825						830		
Gly	Arg	Thr	Pro	Val	Thr	Gly	Tyr	Phe	Val	Asp	Leu	Lys	Glu	Ala	Lys
	835					840						845			
Ala	Lys	Glu	Asp	Gln	Trp	Arg	Gly	Leu	Asn	Glu	Ala	Ala	Ile	Lys	Asn
850					855					860					
Val	Tyr	Leu	Lys	Val	Arg	Gly	Leu	Lys	Glu	Gly	Val	Ser	Tyr	Val	Phe
865				870						875					880
Arg	Val	Arg	Ala	Ile	Asn	Gln	Ala	Gly	Val	Gly	Lys	Pro	Ser	Asp	Leu
			885					890						895	
Ala	Gly	Pro	Val	Val	Ala	Glu	Thr	Arg	Pro	Gly	Thr	Lys	Glu	Val	Val
	900						905						910		
Val	Asn	Val	Asp	Asp	Asp	Gly	Val	Ile	Ser	Leu	Asn	Phe	Glu	Cys	Asp
	915						920					925			
Lys	Met	Thr	Pro	Lys	Ser	Glu	Phe	Ser	Trp	Ser	Lys	Asp	Tyr	Val	Ser
930					935						940				
Thr	Glu	Asp	Ser	Pro	Arg	Leu	Glu	Val	Glu	Ser	Lys	Gly	Asn	Lys	Thr
945				950						955					960
Lys	Met	Thr	Phe	Lys	Asp	Leu	Gly	Met	Asp	Asp	Leu	Gly	Ile	Tyr	Ser
			965					970						975	
Cys	Asp	Val	Thr	Asp	Thr	Asp	Gly	Ile	Ala	Ser	Ser	Tyr	Leu	Ile	Asp
		980					985						990		
Glu	Glu	Glu	Leu	Lys	Arg	Leu	Leu	Ala	Leu	Ser	His	Glu	His	Lys	Phe
	995					1000					1005				
Pro	Thr	Val	Pro	Val	Lys	Ser	Glu	Leu	Ala	Val	Glu	Ile	Leu	Glu	Lys
	1010				1015						1020				
Gly	Gln	Val	Arg	Phe	Trp	Met	Gln	Ala	Glu	Lys	Leu	Ser	Gly	Asn	Ala
1025				1030						1035					1040
Lys	Val	Asn	Tyr	Ile	Phe	Asn	Glu	Lys	Glu	Ile	Phe	Glu	Gly	Pro	Lys
			1045					1050						1055	

Tyr Lys Met His Ile Asp Arg Asn Thr Gly Ile Ile Glu Met Phe Met  
 1060 1065 1070  
 Glu Lys Leu Gln Asp Glu Asp Glu Gly Thr Tyr Thr Phe Gln Leu Gln  
 1075 1080 1085  
 Asp Gly Lys Ala Thr Asn His Ser Thr Val Val Leu Val Gly Asp Val  
 1090 1095 1100  
 Phe Lys Lys Leu Gln Lys Glu Ala Glu Phe Gln Arg Gln Glu Trp Ile  
 1105 1110 1115 1120  
 Arg Lys Gln Gly Pro His Phe Val Glu Tyr Leu Ser Trp Glu Val Thr  
 1125 1130 1135  
 Gly Glu Cys Asn Val Leu Leu Lys Cys Lys Val Ala Asn Ile Lys Lys  
 1140 1145 1150  
 Glu Thr His Ile Val Trp Tyr Lys Asp Glu Arg Glu Ile Ser Val Asp  
 1155 1160 1165  
 Glu Lys His Asp Phe Lys Asp Gly Ile Cys Thr Leu Leu Ile Thr Glu  
 1170 1175 1180  
 Phe Ser Lys Lys Asp Ala Gly Ile Tyr Glu Val Ile Leu Lys Asp Asp  
 1185 1190 1195 1200  
 Arg Gly Lys Asp Lys Ser Arg Leu Lys Leu Val Asp Glu Ala Phe Lys  
 1205 1210 1215  
 Glu Leu Met Met Glu Val Cys Lys Lys Ile Ala Leu Ser Ala Thr Asp  
 1220 1225 1230  
 Leu Lys Ile Gln Ser Thr Ala Glu Gly Ile Gln Leu Tyr Ser Phe Val  
 1235 1240 1245  
 Thr Tyr Tyr Val Glu Asp Leu Lys Val Asn Trp Ser His Asn Gly Ser  
 1250 1255 1260  
 Ala Ile Arg Tyr Ser Asp Arg Val Lys Thr Gly Val Thr Gly Glu Gln  
 1265 1270 1275 1280  
 Ile Trp Leu Gln Ile Asn Glu Pro Thr Pro Asn Asp Lys Gly Lys Tyr  
 1285 1290 1295  
 Val Met Glu Leu Phe Asp Gly Lys Thr Gly His Gln Lys Thr Val Asp  
 1300 1305 1310  
 Leu Ser Gly Gln Ala Tyr Asp Glu Ala Tyr Ala Glu Phe Gln Arg Leu  
 1315 1320 1325  
 Lys Gln Ala Ala Ile Ala Glu Lys Asn Arg Ala Arg Val Leu Gly Gly  
 1330 1335 1340  
 Leu Pro Asp Val Val Thr Ile Gln Glu Gly Lys Ala Leu Asn Leu Thr  
 1345 1350 1355 1360  
 Cys Asn Val Trp Gly Asp Pro Pro Pro Glu Val Ser Trp Leu Lys Asn  
 1365 1370 1375  
 Glu Lys Ala Leu Ala Ser Asp Asp His Cys Asn Leu Lys Phe Glu Ala  
 1380 1385 1390  
 Gly Arg Thr Ala Tyr Phe Thr Ile Asn Gly Val Ser Thr Ala Asp Ser  
 1395 1400 1405  
 Gly Lys Tyr Gly Leu Val Val Lys Asn Lys Tyr Gly Ser Glu Thr Ser  
 1410 1415 1420  
 Asp Phe Thr Val Ser Val Phe Ile Pro Glu Glu Ala Arg Met Ala  
 1425 1430 1435 1440  
 Ala Leu Glu Ser Leu Lys Gly Gly Lys Lys Ala Lys \*  
 1445 1450 1452

<210> 1490  
 <211> 1029  
 <212> PRT  
 <213> Homo sapiens

<400> 1490  
 Met Ser Thr Ala Thr Ser Pro Leu Met Gly Ala Gln Ser Phe Pro Asn  
 1 5 10 15  
 Leu Thr Thr Pro Gly Thr Thr Ser Thr Val Thr Met Ser Thr Ser Ser  
 20 25 30

Val	Thr	Ser	Ser	Ser	Asn	Val	Ala	Thr	Ala	Thr	Thr	Val	Leu	Ser	Val
	35						40					45			
Gly	Gln	Ser	Leu	Ser	Asn	Thr	Leu	Thr	Thr	Ser	Leu	Thr	Ser	Thr	Ser
	50					55					60				
Ser	Glu	Ser	Asp	Thr	Gly	Gln	Glu	Ala	Glu	Tyr	Ser	Leu	Tyr	Asp	Phe
	65				70					75					80
Leu	Asp	Ser	Cys	Arg	Ala	Ser	Thr	Leu	Leu	Ala	Glu	Leu	Asp	Asp	Asp
			85						90					95	
Glu	Asp	Leu	Pro	Glu	Pro	Asp	Glu	Glu	Asp	Asp	Glu	Asn	Glu	Asp	Asp
			100						105				110		
Asn	Gln	Glu	Asp	Gln	Glu	Tyr	Glu	Glu	Val	Met	Ile	Leu	Arg	Arg	Pro
	115						120						125		
Ser	Leu	Gln	Arg	Arg	Ala	Gly	Ser	Arg	Ser	Asp	Val	Thr	His	His	Ala
	130					135					140				
Val	Thr	Ser	Gln	Leu	Pro	Gln	Val	Pro	Ala	Gly	Ala	Gly	Ser	Arg	Pro
	145				150					155					160
Ile	Gly	Glu	Gln	Glu	Glu	Glu	Glu	Tyr	Glu	Thr	Lys	Gly	Gly	Arg	Arg
			165						170					175	
Arg	Thr	Trp	Asp	Asp	Asp	Tyr	Val	Leu	Lys	Arg	Gln	Phe	Ser	Ala	Leu
	180							185					190		
Val	Pro	Ala	Phe	Asp	Pro	Arg	Pro	Gly	Arg	Thr	Asn	Val	Gln	Gln	Thr
	195						200					205			
Thr	Asp	Leu	Glu	Ile	Pro	Pro	Pro	Gly	Thr	Pro	His	Ser	Glu	Leu	Leu
	210				215						220				
Glu	Glu	Val	Glu	Cys	Thr	Pro	Ser	Pro	Arg	Leu	Ala	Leu	Thr	Leu	Lys
	225				230					235					240
Val	Thr	Gly	Leu	Gly	Thr	Thr	Arg	Glu	Val	Glu	Leu	Pro	Leu	Thr	Asn
			245						250					255	
Phe	Arg	Ser	Thr	Ile	Phe	Tyr	Tyr	Val	Gln	Lys	Leu	Leu	Gln	Leu	Ser
			260					265					270		
Cys	Asn	Gly	Asn	Val	Lys	Ser	Asp	Lys	Leu	Arg	Arg	Ile	Trp	Glu	Pro
	275						280					285			
Thr	Tyr	Thr	Ile	Met	Tyr	Arg	Glu	Met	Lys	Asp	Ser	Asp	Lys	Glu	Lys
	290					295					300				
Glu	Asn	Gly	Lys	Met	Gly	Cys	Trp	Ser	Ile	Glu	His	Val	Glu	Gln	Tyr
	305				310					315					320
Leu	Gly	Thr	Asp	Glu	Leu	Pro	Lys	Asn	Asp	Leu	Ile	Thr	Tyr	Leu	Gln
			325						330					335	
Lys	Asn	Ala	Asp	Ala	Ala	Phe	Leu	Arg	His	Trp	Lys	Leu	Thr	Gly	Thr
			340				345					350			
Asn	Lys	Ser	Ile	Arg	Lys	Asn	Arg	Asn	Cys	Ser	Gln	Leu	Ile	Ala	Ala
	355					360						365			
Tyr	Lys	Asp	Phe	Cys	Glu	His	Gly	Thr	Lys	Ser	Gly	Leu	Asn	Gln	Gly
	370					375					380				
Ala	Ile	Ser	Thr	Leu	Gln	Ser	Ser	Asp	Ile	Leu	Asn	Leu	Thr	Lys	Glu
	385				390					395					400
Gln	Pro	Gln	Ala	Lys	Ala	Gly	Asn	Gly	Gln	Asn	Ser	Cys	Gly	Val	Glu
			405						410					415	
Asp	Val	Leu	Gln	Leu	Leu	Arg	Ile	Leu	Tyr	Ile	Val	Ala	Ser	Asp	Pro
			420					425				430			
Tyr	Ser	Arg	Ile	Ser	Gln	Glu	Asp	Gly	Asp	Glu	Gln	Pro	Gln	Phe	Thr
	435						440					445			
Phe	Pro	Asp	Glu	Phe	Thr	Ser	Lys	Lys	Ile	Thr	Thr	Lys	Ile	Leu	
	450				455					460					
Gln	Gln	Ile	Glu	Glu	Pro	Leu	Ala	Leu	Ala	Ser	Gly	Ala	Leu	Pro	Asp
	465				470					475					480
Trp	Cys	Glu	Gln	Leu	Thr	Ser	Lys	Cys	Pro	Phe	Leu	Ile	Pro	Phe	Glu
			485						490					495	
Thr	Arg	Gln	Leu	Tyr	Phe	Thr	Cys	Thr	Ala	Phe	Gly	Ala	Ser	Arg	Ala
			500					505					510		
Ile	Val	Trp	Leu	Gln	Asn	Arg	Arg	Glu	Ala	Thr	Val	Glu	Arg	Thr	Arg
	515					520					525				
Thr	Thr	Ser	Ser	Val	Arg	Arg	Asp	Asp	Pro	Gly	Glu	Phe	Arg	Val	Gly
	530					535					540				

Arg	Leu	Lys	His	Glu	Arg	Val	Lys	Val	Pro	Arg	Gly	Glu	Ser	Leu	Met
545					550					555					560
Glu	Trp	Ala	Glu	Asn	Val	Met	Gln	Ile	His	Ala	Asp	Arg	Lys	Ser	Val
				565					570						575
Leu	Glu	Val	Glu	Phe	Leu	Gly	Glu	Glu	Gly	Thr	Gly	Leu	Gly	Pro	Thr
				580					585					590	
Leu	Glu	Phe	Tyr	Ala	Leu	Val	Ala	Ala	Glu	Phe	Gln	Arg	Thr	Asp	Leu
		595					600					605			
Gly	Ala	Trp	Leu	Cys	Asp	Asp	Asn	Phe	Pro	Asp	Asp	Glu	Ser	Arg	His
	610					615					620				
Val	Asp	Leu	Gly	Gly	Gly	Leu	Lys	Pro	Pro	Gly	Tyr	Tyr	Val	Gln	Arg
625					630					635					640
Ser	Cys	Gly	Leu	Phe	Thr	Ala	Pro	Phe	Pro	Gln	Asp	Ser	Asp	Glu	Leu
				645					650					655	
Glu	Arg	Ile	Thr	Lys	Leu	Phe	His	Phe	Leu	Gly	Ile	Phe	Leu	Ala	Lys
			660					665					670		
Cys	Ile	Gln	Asp	Asn	Arg	Leu	Val	Asp	Leu	Pro	Ile	Ser	Lys	Pro	Phe
	675					680						685			
Phe	Lys	Leu	Met	Cys	Met	Gly	Asp	Ile	Lys	Ser	Asn	Met	Ser	Lys	Leu
	690					695					700				
Ile	Tyr	Glu	Ser	Arg	Gly	Asp	Arg	Asp	Leu	His	Cys	Thr	Glu	Ser	Gln
705					710					715					720
Ser	Glu	Ala	Ser	Thr	Glu	Glu	Gly	His	Asp	Ser	Leu	Ser	Val	Gly	Ser
				725					730					735	
Phe	Glu	Glu	Asp	Ser	Lys	Ser	Glu	Phe	Ile	Leu	Asp	Pro	Pro	Lys	Pro
			740					745					750		
Lys	Pro	Pro	Ala	Trp	Phe	Asn	Gly	Ile	Leu	Thr	Trp	Glu	Asp	Phe	Glu
	755						760						765		
Leu	Val	Asn	Pro	His	Arg	Ala	Arg	Phe	Leu	Lys	Glu	Ile	Lys	Asp	Leu
	770					775					780				
Ala	Ile	Lys	Arg	Arg	Gln	Ile	Leu	Ser	Asn	Lys	Gly	Leu	Ser	Glu	Asp
785					790					795					800
Glu	Lys	Asn	Thr	Lys	Leu	Gln	Glu	Leu	Val	Leu	Lys	Asn	Pro	Ser	Gly
				805					810					815	
Ser	Gly	Pro	Pro	Leu	Ser	Ile	Glu	Asp	Leu	Gly	Leu	Asn	Phe	Gln	Phe
			820					825					830		
Cys	Pro	Ser	Ser	Arg	Ile	Tyr	Gly	Phe	Thr	Ala	Val	Asp	Leu	Lys	Pro
	835						840					845			
Ser	Gly	Glu	Asp	Glu	Met	Ile	Thr	Met	Asp	Asn	Ala	Glu	Glu	Tyr	Val
	850					855					860				
Asp	Leu	Met	Phe	Asp	Phe	Cys	Met	His	Thr	Gly	Ile	Gln	Lys	Gln	Met
865					870					875					880
Glu	Ala	Phe	Arg	Asp	Gly	Phe	Asn	Lys	Val	Phe	Pro	Met	Glu	Lys	Leu
				885					890					895	
Ser	Ser	Phe	Ser	His	Glu	Glu	Val	Gln	Met	Ile	Leu	Cys	Gly	Asn	Gln
			900					905					910		
Ser	Pro	Ser	Trp	Ala	Ala	Glu	Asp	Ile	Ile	Asn	Tyr	Thr	Glu	Pro	Lys
	915						920						925		
Leu	Gly	Tyr	Thr	Arg	Asp	Ser	Pro	Gly	Phe	Leu	Arg	Phe	Val	Arg	Val
	930					935					940				
Leu	Cys	Gly	Met	Ser	Ser	Asp	Glu	Arg	Lys	Ala	Phe	Leu	Gln	Phe	Thr
945					950					955					960
Thr	Gly	Cys	Ser	Thr	Leu	Pro	Pro	Gly	Gly	Leu	Ala	Asn	Leu	His	Pro
				965					970					975	
Arg	Leu	Thr	Val	Val	Arg	Lys	Val	Asp	Ala	Thr	Asp	Ala	Ser	Tyr	Pro
			980					985					990		
Ser	Val	Asn	Thr	Cys	Val	His	Tyr	Leu	Lys	Leu	Pro	Glu	Tyr	Ser	Ser
	995					1000					1005				
Glu	Glu	Ile	Met	Arg	Glu	Arg	Leu	Leu	Ala	Ala	Thr	Met	Glu	Lys	Gly
	1010					1015					1020				
Phe	His	Leu	Asn	*											
1025					1028										

<210> 1491  
 <211> 154  
 <212> PRT  
 <213> Homo sapiens

<400> 1491  
 Met Thr Lys Ile Lys Ala Asp Pro Asp Gly Pro Glu Ala Gln Ala Glu  
 1 5 10 15  
 Ala Cys Ser Gly Glu Arg Thr Tyr Gln Glu Leu Leu Val Asn Gln Asn  
 20 25 30  
 Pro Ile Ala Gln Pro Leu Ala Ser Arg Arg Leu Thr Arg Lys Leu Tyr  
 35 40 45  
 Lys Cys Ile Lys Lys Ala Val Lys Gln Lys Gln Ile Arg Arg Gly Val  
 50 55 60  
 Lys Glu Val Gln Lys Phe Val Asn Lys Gly Glu Lys Gly Ile Met Val  
 65 70 75 80  
 Leu Ala Gly Asp Thr Leu Pro Ile Glu Val Tyr Cys His Leu Pro Val  
 85 90 95  
 Met Cys Glu Asp Arg Asn Leu Pro Tyr Val Tyr Ile Pro Ser Lys Thr  
 100 105 110  
 Asp Leu Gly Ala Ala Ala Gly Ser Lys Arg Pro Thr Cys Val Ile Met  
 115 120 125  
 Val Lys Pro His Glu Glu Tyr Gln Glu Ala Tyr Asp Glu Cys Leu Glu  
 130 135 140  
 Glu Val Gln Ser Leu Pro Leu Pro Leu \*  
 145 150 153

<210> 1492  
 <211> 633  
 <212> PRT  
 <213> Homo sapiens

<400> 1492  
 Met Ser Asp Lys Ser Glu Leu Lys Ala Glu Leu Glu Arg Lys Lys Gln  
 1 5 10 15  
 Arg Leu Ala Gln Ile Arg Glu Glu Lys Arg Lys Glu Glu Glu Arg  
 20 25 30  
 Lys Lys Lys Glu Thr Asp Gln Lys Lys Glu Ala Val Ala Pro Val Gln  
 35 40 45  
 Glu Glu Ser Asp Leu Glu Lys Lys Arg Arg Glu Ala Glu Ala Leu Leu  
 50 55 60  
 Gln Ser Met Gly Leu Thr Pro Glu Ser Pro Ile Val Pro Pro Pro Met  
 65 70 75 80  
 Ser Pro Ser Ser Lys Ser Val Ser Thr Pro Ser Glu Ala Gly Ser Gln  
 85 90 95  
 Asp Ser Gly Asp Gly Ala Val Gly Ser Arg Thr Leu His Trp Asp Thr  
 100 105 110  
 Asp Pro Ser Val Leu Gln Leu His Ser Asp Ser Asp Leu Gly Arg Gly  
 115 120 125  
 Pro Ile Lys Leu Gly Met Ala Lys Ile Thr Gln Val Asp Phe Pro Pro  
 130 135 140  
 Arg Glu Ile Val Thr Tyr Thr Lys Glu Thr Gln Thr Pro Val Met Ala  
 145 150 155 160  
 Gln Pro Lys Glu Asp Glu Glu Glu Asp Asp Asp Val Val Ala Pro Lys  
 165 170 175  
 Pro Pro Ile Glu Pro Glu Glu Glu Lys Thr Leu Lys Lys Asp Glu Glu  
 180 185 190  
 Asn Asp Ser Lys Ala Pro Pro His Glu Leu Thr Glu Glu Lys Gln  
 195 200 205



Gln Ile Leu His Ser Glu Glu Phe Leu Ser Phe Phe Asp His Ser Thr  
 210 215 220  
 Arg Ile Val Glu Arg Ala Leu Ser Glu Gln Ile Asn Ile Phe Phe Asp  
 225 230 235 240  
 Tyr Ser Gly Arg Asp Leu Glu Asp Lys Glu Gly Glu Ile Gln Ala Gly  
 245 250 255  
 Ala Lys Leu Ser Leu Asn Arg Gln Phe Phe Asp Glu Arg Trp Ser Lys  
 260 265 270  
 His Arg Val Val Ser Cys Leu Asp Trp Ser Ser Gln Tyr Pro Glu Leu  
 275 280 285  
 Leu Val Ala Ser Tyr Asn Asn Asn Glu Asp Ala Pro His Glu Pro Asp  
 290 295 300  
 Gly Val Ala Leu Val Trp Asn Met Lys Tyr Lys Lys Thr Thr Pro Glu  
 305 310 315 320  
 Tyr Val Phe His Cys Gln Ser Ala Val Met Ser Ala Thr Phe Ala Lys  
 325 330 335  
 Phe His Pro Asn Leu Val Val Gly Gly Thr Tyr Ser Gly Gln Ile Val  
 340 345 350  
 Leu Trp Asp Asn Arg Ser Asn Lys Arg Thr Pro Val Gln Arg Thr Pro  
 355 360 365  
 Leu Ser Ala Ala Ala His Thr His Pro Val Tyr Cys Val Asn Val Val  
 370 375 380  
 Gly Thr Gln Asn Ala His Asn Leu Ile Ser Ile Ser Thr Asp Gly Lys  
 385 390 395 400  
 Ile Cys Ser Trp Ser Leu Asp Met Leu Ser His Pro Gln Asp Ser Met  
 405 410 415  
 Glu Leu Val His Lys Gln Ser Lys Ala Val Ala Val Thr Ser Met Ser  
 420 425 430  
 Phe Pro Val Gly Asp Val Asn Asn Phe Val Val Gly Ser Glu Glu Gly  
 435 440 445  
 Ser Val Tyr Thr Ala Cys Arg His Gly Ser Lys Ala Gly Ile Ser Glu  
 450 455 460  
 Met Phe Glu Gly His Gln Gly Pro Ile Thr Gly Ile His Cys His Ala  
 465 470 475 480  
 Ala Val Gly Ala Val Asp Phe Ser His Leu Tyr Val Thr Ser Ser Phe  
 485 490 495  
 Asp Trp Thr Val Lys Leu Trp Thr Thr Lys Asn Asn Lys Pro Leu Tyr  
 500 505 510  
 Ser Phe Glu Asp Asn Ala Asp Tyr Val Tyr Asp Val Met Trp Ser Pro  
 515 520 525  
 Thr His Pro Ala Leu Phe Ala Cys Val Asp Gly Met Gly Arg Leu Asp  
 530 535 540  
 Leu Trp Asn Leu Asn Asn Asp Thr Glu Val Pro Thr Ala Ser Ile Ser  
 545 550 555 560  
 Val Glu Gly Asn Pro Ala Leu Asn Arg Val Arg Trp Thr His Ser Gly  
 565 570 575  
 Arg Glu Ile Ala Val Gly Asp Ser Glu Gly Gln Ile Val Ile Tyr Asp  
 580 585 590  
 Val Gly Glu Gln Ile Ala Val Pro Arg Asn Asp Glu Trp Ala Arg Phe  
 595 600 605  
 Gly Arg Thr Leu Ala Glu Ile Asn Ala Asn Arg Ala Asp Ala Glu Glu  
 610 615 620  
 Glu Ala Ala Thr Arg Ile Pro Ala \*  
 625 630 632

&lt;210&gt; 1493

&lt;211&gt; 613

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1493

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Met Ser Asp Lys Ser Glu Leu Lys Ala Glu Leu Glu Arg Lys Lys Gln
 1          5          10          15
Arg Leu Ala Gln Ile Arg Glu Glu Lys Lys Arg Lys Glu Glu Glu Arg
          20          25          30
Lys Lys Lys Glu Thr Asp Gln Lys Lys Glu Ala Val Ala Pro Val Gln
          35          40          45
Glu Glu Ser Asp Leu Glu Lys Lys Arg Arg Glu Ala Glu Ala Leu Leu
          50          55          60
Gln Ser Met Gly Leu Thr Pro Glu Ser Pro Ile Val Pro Pro Pro Met
          65          70          75          80
Ser Pro Ser Ser Lys Ser Val Ser Thr Pro Ser Glu Ala Gly Ser Gln
          85          90          95
Asp Ser Gly Asp Gly Ala Val Gly Ser Arg Arg Gly Pro Ile Lys Leu
          100          105          110
Gly Met Ala Lys Ile Thr Gln Val Asp Phe Pro Pro Arg Glu Ile Val
          115          120          125
Thr Tyr Thr Lys Glu Thr Gln Thr Pro Val Met Ala Gln Pro Lys Glu
          130          135          140
Asp Glu Glu Glu Asp Asp Asp Val Val Ala Pro Lys Pro Pro Ile Glu
          145          150          155          160
Pro Glu Glu Glu Lys Thr Leu Lys Lys Asp Glu Glu Asn Asp Ser Lys
          165          170          175
Ala Pro Pro His Glu Leu Thr Glu Glu Glu Lys Gln Gln Ile Leu His
          180          185          190
Ser Glu Glu Phe Leu Ser Phe Phe Asp His Ser Thr Arg Ile Val Glu
          195          200          205
Arg Ala Leu Ser Glu Gln Ile Asn Ile Phe Phe Asp Tyr Ser Gly Arg
          210          215          220
Asp Leu Glu Asp Lys Glu Gly Glu Ile Gln Ala Gly Ala Lys Leu Ser
          225          230          235          240
Leu Asn Arg Gln Phe Phe Asp Glu Arg Trp Ser Lys His Arg Val Val
          245          250          255
Ser Cys Leu Asp Trp Ser Ser Gln Tyr Pro Glu Leu Leu Val Ala Ser
          260          265          270
Tyr Asn Asn Asn Glu Asp Ala Pro His Glu Pro Asp Gly Val Ala Leu
          275          280          285
Val Trp Asn Met Lys Tyr Lys Lys Thr Thr Pro Glu Tyr Val Phe His
          290          295          300
Cys Gln Ser Ala Val Met Ser Ala Thr Phe Ala Lys Phe His Pro Asn
          305          310          315          320
Leu Val Val Gly Gly Thr Tyr Ser Gly Gln Ile Val Leu Trp Asp Asn
          325          330          335
Arg Ser Asn Lys Arg Thr Pro Val Gln Arg Thr Pro Leu Ser Ala Ala
          340          345          350
Ala His Thr His Pro Val Tyr Cys Val Asn Val Val Gly Thr Gln Asn
          355          360          365
Ala His Asn Leu Ile Ser Ile Ser Thr Asp Gly Lys Ile Cys Ser Trp
          370          375          380
Ser Leu Asp Met Leu Ser His Pro Gln Asp Ser Met Glu Leu Val His
          385          390          395          400
Lys Gln Ser Lys Ala Val Ala Val Thr Ser Met Ser Phe Pro Val Gly
          405          410          415
Asp Val Asn Asn Phe Val Val Gly Ser Glu Glu Gly Ser Val Tyr Thr
          420          425          430
Ala Cys Arg His Gly Ser Lys Ala Gly Ile Ser Glu Met Phe Glu Gly
          435          440          445
His Gln Gly Pro Ile Thr Gly Ile His Cys His Ala Ala Val Gly Ala
          450          455          460
Val Asp Phe Ser His Leu Tyr Val Thr Ser Ser Phe Asp Trp Thr Val
          465          470          475          480
Lys Leu Trp Thr Thr Lys Asn Asn Lys Pro Leu Tyr Ser Phe Glu Asp
          485          490          495
Asn Ala Asp Tyr Val Tyr Asp Val Met Trp Ser Pro Thr His Pro Ala
          500          505          510

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Leu Phe Ala Cys Val Asp Gly Met Gly Arg Leu Asp Leu Trp Asn Leu
    515                      520                      525
Asn Asn Asp Thr Glu Val Pro Thr Ala Ser Ile Ser Val Glu Gly Asn
    530                      535                      540
Pro Ala Leu Asn Arg Val Arg Trp Thr His Ser Gly Arg Glu Ile Ala
545                      550                      555                      560
Val Gly Asp Ser Glu Gly Gln Ile Val Ile Tyr Asp Val Gly Glu Gln
    565                      570                      575
Ile Ala Val Pro Arg Asn Asp Glu Trp Ala Arg Phe Gly Arg Thr Leu
    580                      585                      590
Ala Glu Ile Asn Ala Asn Arg Ala Asp Ala Glu Glu Glu Ala Ala Thr
    595                      600                      605
Arg Ile Pro Ala *
610      612

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&lt;210&gt; 1494

&lt;211&gt; 884

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1494

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Met Lys Lys Ala Lys Val Ala Leu Met Lys Gln Met Arg Glu Glu Gln
 1                      5                      10                      15
Gln Arg Arg Arg Leu Val Glu Thr Lys Arg Asn Arg Glu Ile Ala Gln
    20                      25                      30
Leu Lys Lys Glu Gln Arg Arg Gln Glu Phe Gln Ile Arg Ala Leu Glu
    35                      40                      45
Ser Gln Lys Arg Gln Gln Glu Met Val Leu Arg Arg Lys Thr Gln Glu
    50                      55                      60
Val Ser Ala Leu Arg Arg Leu Ala Lys Pro Met Ser Glu Arg Val Ala
65                      70                      75                      80
Gly Arg Ala Gly Leu Lys Pro Pro Met Leu Asp Ser Gly Ala Glu Val
    85                      90                      95
Ser Ala Ser Thr Thr Ser Ser Glu Ala Glu Ser Gly Ala Arg Ser Val
    100                      105                      110
Ser Ser Ile Val Arg Gln Trp Asn Arg Lys Ile Asn His Phe Leu Gly
115                      120                      125
Asp His Pro Ala Pro Thr Val Asn Gly Thr Arg Pro Ala Arg Lys Lys
130                      135                      140
Phe Gln Lys Lys Gly Ala Ser Gln Ser Phe Ser Lys Ala Ala Arg Leu
145                      150                      155                      160
Lys Trp Gln Ser Leu Glu Arg Arg Ile Ile Asp Ile Val Met Gln Arg
    165                      170                      175
Met Thr Ile Val Asn Leu Glu Ala Asp Met Glu Arg Leu Ile Lys Lys
    180                      185                      190
Arg Glu Glu Leu Phe Leu Leu Gln Glu Ala Leu Arg Arg Lys Arg Glu
    195                      200                      205
Arg Leu Gln Ala Glu Ser Pro Glu Glu Glu Lys Gly Leu Gln Glu Leu
210                      215                      220
Ala Glu Glu Ile Glu Val Leu Ala Ala Asn Ile Asp Tyr Ile Asn Asp
225                      230                      235                      240
Gly Ile Thr Asp Cys Gln Ala Thr Ile Val Gln Leu Glu Glu Thr Lys
    245                      250                      255
Glu Glu Leu Asp Ser Thr Asp Thr Ser Val Val Ile Ser Ser Cys Ser
260                      265                      270
Leu Ala Glu Ala Arg Leu Leu Leu Asp Asn Phe Leu Lys Ala Ser Ile
275                      280                      285
Asp Lys Gly Leu Gln Val Ala Gln Lys Glu Ala Gln Ile Arg Leu Leu
290                      295                      300
Glu Gly Arg Leu Arg Gln Thr Asp Met Ala Gly Ser Ser Gln Asn His
305                      310                      315                      320

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Leu Leu Leu Asp Ala Leu Arg Glu Lys Ala Glu Ala His Pro Glu Leu  
 325 330 335  
 Gln Ala Leu Ile Tyr Asn Val Gln Gln Glu Asn Gly Tyr Ala Ser Thr  
 340 345 350  
 Asp Glu Glu Ile Ser Glu Phe Ser Glu Gly Ser Phe Ser Gln Ser Phe  
 355 360 365  
 Thr Met Lys Gly Ser Thr Ser His Asp Asp Phe Lys Phe Lys Ser Glu  
 370 375 380  
 Pro Lys Leu Ser Ala Gln Met Lys Ala Val Ser Ala Glu Cys Leu Gly  
 385 390 395 400  
 Pro Pro Leu Asp Ile Ser Thr Lys Asn Ile Thr Lys Ser Leu Ala Ser  
 405 410 415  
 Leu Val Glu Ile Lys Glu Asp Gly Val Gly Phe Ser Val Arg Asp Pro  
 420 425 430  
 Tyr Tyr Arg Asp Arg Val Ser Arg Thr Val Ser Leu Pro Thr Arg Gly  
 435 440 445  
 Ser Thr Phe Pro Arg Gln Ser Arg Ala Thr Glu Thr Ser Pro Leu Thr  
 450 455 460  
 Arg Arg Lys Ser Tyr Asp Arg Gly Gln Pro Ile Arg Ser Thr Asp Val  
 465 470 475 480  
 Gly Phe Thr Pro Pro Ser Ser Pro Pro Thr Arg Pro Arg Asn Asp Arg  
 485 490 495  
 Asn Val Phe Ser Arg Leu Thr Ser Asn Gln Ser Gln Gly Ser Ala Leu  
 500 505 510  
 Asp Lys Ser Asp Asp Ser Asp Ser Ser Leu Ser Glu Val Leu Arg Gly  
 515 520 525  
 Ile Ile Ser Pro Val Gly Gly Ala Lys Gly Ala Arg Thr Ala Pro Leu  
 530 535 540  
 Gln Cys Val Ser Met Ala Glu Gly His Thr Lys Pro Ile Leu Cys Leu  
 545 550 555 560  
 Asp Ala Thr Asp Glu Leu Leu Phe Thr Gly Ser Lys Asp Arg Ser Cys  
 565 570 575  
 Lys Met Trp Asn Leu Val Thr Gly Gln Glu Ile Ala Ala Leu Lys Gly  
 580 585 590  
 His Pro Asn Asn Val Val Ser Ile Lys Tyr Cys Ser His Ser Gly Leu  
 595 600 605  
 Val Phe Ser Val Ser Thr Ser Tyr Ile Lys Val Trp Asp Ile Arg Asp  
 610 615 620  
 Ser Ala Lys Cys Ile Arg Thr Leu Thr Ser Ser Gly Gln Val Ile Ser  
 625 630 635 640  
 Gly Asp Ala Cys Ala Ala Thr Ser Thr Arg Ala Ile Thr Ser Ala Gln  
 645 650 655  
 Gly Glu His Gln Ile Asn Gln Ile Ala Leu Ser Pro Ser Gly Thr Met  
 660 665 670  
 Leu Tyr Ala Ala Ser Gly Asn Ala Val Arg Ile Trp Glu Leu Ser Arg  
 675 680 685  
 Phe Gln Pro Val Gly Lys Leu Thr Gly His Ile Gly Pro Val Met Cys  
 690 695 700  
 Leu Thr Val Thr Gln Thr Ala Ser Gln His Asp Leu Val Val Thr Gly  
 705 710 715 720  
 Ser Lys Asp His Tyr Val Lys Met Phe Glu Leu Gly Glu Cys Val Thr  
 725 730 735  
 Gly Thr Ile Gly Pro Thr His Asn Phe Glu Pro Pro His Tyr Asp Gly  
 740 745 750  
 Ile Glu Cys Leu Ala Ile Gln Gly Asp Ile Leu Phe Ser Gly Ser Arg  
 755 760 765  
 Asp Asn Gly Ile Lys Lys Trp Asp Leu Asp Gln Gln Glu Leu Ile Gln  
 770 775 780  
 Gln Ile Pro Asn Ala His Lys Asp Trp Val Cys Ala Leu Ala Phe Ile  
 785 790 795 800  
 Pro Gly Arg Pro Met Leu Leu Ser Ala Cys Arg Ala Gly Val Ile Lys  
 805 810 815  
 Val Trp Asn Val Asp Asn Phe Thr Pro Ile Gly Glu Ile Lys Gly His  
 820 825 830

Asp Ser Pro Ile Asn Ala Ile Cys Thr Asn Ala Lys His Ile Phe Thr  
           835                          840                          845  
 Ala Ser Ser Asp Cys Arg Val Lys Leu Trp Asn Tyr Val Pro Gly Leu  
           850                          855                          860  
 Thr Pro Cys Leu Pro Arg Arg Val Leu Ala Ile Lys Gly Arg Ala Thr  
  865                          870                          875                          880  
 Thr Leu Pro \*  
           883

<210> 1495  
 <211> 971  
 <212> PRT  
 <213> Homo sapiens

<400> 1495  
 Met Ala Thr Cys Ile Gly Glu Lys Ile Glu Asp Phe Lys Val Gly Asn  
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 Leu Leu Gly Lys Gly Ser Phe Ala Gly Val Tyr Arg Ala Glu Ser Ile  
           20                          25                          30  
 His Thr Gly Leu Glu Val Ala Ile Lys Met Ile Asp Lys Lys Ala Met  
           35                          40                          45  
 Tyr Lys Ala Gly Met Val Gln Arg Val Gln Asn Glu Val Lys Ile His  
           50                          55                          60  
 Cys Gln Leu Lys His Pro Ser Ile Leu Glu Leu Tyr Asn Tyr Phe Glu  
  65                          70                          75                          80  
 Asp Ser Asn Tyr Val Tyr Leu Val Leu Glu Met Cys His Asn Gly Glu  
           85                          90                          95  
 Met Asn Arg Tyr Leu Lys Asn Arg Val Lys Pro Phe Ser Glu Asn Glu  
          100                         105                         110  
 Ala Arg His Phe Met His Gln Ile Ile Thr Gly Met Leu Tyr Leu His  
          115                         120                         125  
 Ser His Gly Ile Leu His Arg Asp Leu Thr Leu Ser Asn Leu Leu Leu  
          130                         135                         140  
 Thr Arg Asn Met Asn Ile Lys Ile Ala Asp Phe Gly Leu Ala Thr Gln  
  145                         150                         155                         160  
 Leu Lys Met Pro His Glu Lys His Tyr Thr Leu Cys Gly Thr Pro Asn  
          165                         170                         175  
 Tyr Ile Ser Pro Glu Ile Ala Thr Arg Ser Ala His Gly Leu Glu Ser  
          180                         185                         190  
 Asp Val Trp Ser Leu Gly Cys Met Phe Tyr Thr Leu Leu Ile Gly Arg  
          195                         200                         205  
 Pro Pro Phe Asp Thr Asp Thr Val Lys Asn Thr Leu Asn Lys Val Val  
          210                         215                         220  
 Leu Ala Asp Tyr Glu Met Pro Thr Phe Leu Ser Ile Glu Ala Lys Asp  
  225                         230                         235                         240  
 Leu Ile His Gln Leu Leu Arg Arg Asn Pro Ala Asp Arg Leu Ser Leu  
          245                         250                         255  
 Ser Ser Val Leu Asp His Pro Phe Met Ser Arg Asn Ser Ser Thr Lys  
          260                         265                         270  
 Ser Lys Asp Leu Gly Thr Val Glu Asp Ser Ile Asp Ser Gly His Ala  
          275                         280                         285  
 Thr Ile Ser Thr Ala Ile Thr Ala Ser Ser Ser Thr Ser Ile Ser Gly  
          290                         295                         300  
 Ser Leu Phe Asp Lys Arg Arg Leu Leu Ile Gly Gln Pro Leu Pro Asn  
  305                         310                         315                         320  
 Lys Met Thr Val Phe Pro Lys Asn Lys Ser Ser Thr Asp Phe Ser Ser  
          325                         330                         335  
 Ser Gly Asp Gly Asn Ser Phe Tyr Thr Gln Trp Gly Asn Gln Glu Thr  
          340                         345                         350  
 Ser Asn Ser Gly Arg Gly Arg Val Ile Gln Asp Ala Glu Glu Arg Pro  
          355                         360                         365

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His Ser Arg Tyr Leu Arg Arg Ala Tyr Ser Ser Asp Arg Ser Gly Thr
 370          375          380
Ser Asn Ser Gln Ser Gln Ala Lys Thr Tyr Thr Met Glu Arg Cys His
 385          390          395          400
Ser Ala Glu Met Leu Ser Val Ser Lys Arg Ser Gly Gly Gly Glu Asn
          405          410          415
Glu Glu Arg Tyr Ser Pro Thr Asp Asn Asn Ala Asn Ile Phe Asn Phe
          420          425          430
Phe Lys Glu Lys Thr Ser Ser Ser Ser Gly Ser Phe Glu Arg Pro Asp
          435          440          445
Asn Asn Gln Ala Leu Ser Asn His Leu Cys Pro Gly Lys Thr Pro Phe
          450          455          460
Pro Phe Ala Asp Pro Thr Pro Gln Thr Glu Thr Val Gln Gln Trp Phe
 465          470          475          480
Gly Asn Leu Gln Ile Asn Ala His Leu Arg Lys Thr Thr Glu Tyr Asp
          485          490          495
Ser Ile Ser Pro Asn Arg Asp Phe Gln Gly His Pro Asp Leu Gln Lys
          500          505          510
Asp Thr Ser Lys Asn Ala Trp Thr Asp Thr Lys Val Lys Lys Asn Ser
          515          520          525
Asp Ala Ser Asp Asn Ala His Ser Val Lys Gln Gln Asn Thr Met Lys
          530          535          540
Tyr Met Thr Ala Leu His Ser Lys Pro Glu Ile Ile Gln Gln Glu Cys
 545          550          555          560
Val Phe Gly Ser Asp Pro Leu Ser Glu Gln Ser Lys Thr Arg Gly Met
          565          570          575
Glu Pro Pro Trp Gly Tyr Gln Asn Arg Thr Leu Arg Ser Ile Thr Ser
          580          585          590
Pro Leu Val Ala His Arg Leu Lys Pro Ile Arg Gln Lys Thr Lys Lys
          595          600          605
Ala Val Val Ser Ile Leu Asp Ser Glu Glu Val Cys Val Glu Leu Val
          610          615          620
Lys Glu Tyr Ala Ser Gln Glu Tyr Val Lys Glu Val Leu Gln Ile Ser
 625          630          635          640
Ser Asp Gly Asn Thr Ile Thr Ile Tyr Tyr Pro Asn Gly Gly Arg Gly
          645          650          655
Phe Pro Leu Ala Asp Arg Pro Pro Ser Pro Thr Asp Asn Ile Ser Arg
          660          665          670
Tyr Ser Phe Asp Asn Leu Pro Glu Lys Tyr Trp Arg Lys Tyr Gln Tyr
          675          680          685
Ala Ser Arg Phe Val Gln Leu Val Arg Ser Lys Ser Pro Lys Ile Thr
          690          695          700
Tyr Phe Thr Arg Tyr Ala Lys Cys Ile Leu Met Glu Asn Ser Pro Gly
 705          710          715          720
Ala Asp Phe Glu Val Trp Phe Tyr Asp Gly Val Lys Ile His Lys Thr
          725          730          735
Glu Asp Phe Ile Gln Val Ile Glu Lys Thr Gly Lys Ser Tyr Thr Leu
          740          745          750
Lys Ser Glu Ser Glu Val Asn Ser Leu Lys Glu Glu Ile Lys Met Tyr
          755          760          765
Met Asp His Ala Asn Glu Gly His Arg Ile Cys Leu Ala Leu Glu Ser
          770          775          780
Ile Ile Ser Glu Glu Glu Arg Lys Thr Arg Ser Ala Pro Phe Phe Pro
 785          790          795          800
Ile Ile Ile Gly Arg Lys Pro Gly Ser Thr Ser Ser Pro Lys Ala Leu
          805          810          815
Ser Pro Pro Pro Ser Val Asp Ser Asn Tyr Pro Thr Arg Asp Arg Ala
          820          825          830
Ser Phe Asn Arg Met Val Met His Ser Ala Ala Ser Pro Thr Gln Ala
          835          840          845
Pro Ile Leu Asn Pro Ser Met Val Thr Asn Glu Gly Leu Gly Leu Thr
          850          855          860
Thr Thr Ala Ser Gly Thr Asp Ile Ser Ser Asn Ser Leu Lys Asp Cys
 865          870          875          880

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Leu Pro Lys Ser Ala Gln Leu Leu Lys Ser Val Phe Val Lys Asn Val  
                             885                            890                            895  
 Gly Trp Ala Thr Gln Leu Thr Ser Gly Ala Val Trp Val Gln Phe Asn  
                             900                            905                            910  
 Asp Gly Ser Gln Leu Val Val Gln Ala Gly Val Ser Ser Ile Ser Tyr  
                             915                            920                            925  
 Thr Ser Pro Asn Gly Gln Thr Thr Arg Tyr Gly Glu Asn Glu Lys Leu  
                             930                            935                            940  
 Pro Asp Tyr Ile Lys Gln Lys Leu Gln Cys Leu Ser Ser Ile Leu Leu  
                             945                            950                            955                            960  
 Met Phe Ser Asn Pro Thr Pro Asn Phe His \*  
                             965                            970

<210> 1496  
 <211> 68  
 <212> PRT  
 <213> Homo sapiens

<400> 1496  
 Met Glu Glu Trp Asp Val Pro Gln Met Lys Lys Glu Val Glu Ser Leu  
   1                            5                            10                            15  
 Lys Tyr Gln Leu Ala Phe Gln Arg Glu Met Ala Ser Lys Thr Ile Pro  
                             20                            25                            30  
 Glu Leu Leu Lys Trp Ile Glu Asp Gly Ile Pro Lys Asp Pro Phe Leu  
                             35                            40                            45  
 Asn Pro Asp Leu Met Lys Asn Asn Pro Trp Val Glu Lys Gly Lys Cys  
                             50                            55                            60  
 Thr Ile Leu \*  
   65                            67

<210> 1497  
 <211> 1952  
 <212> PRT  
 <213> Homo sapiens

<400> 1497  
 Met Asn Ala Leu Ala Ser Leu Gly Pro Gly Asp Arg Leu Ser Val Ala  
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 Gln Arg Leu Ser Ile His Leu Gln Asp Thr His Leu Gln Arg Tyr Pro  
                             20                            25                            30  
 Glu His Arg Cys Gly Leu Arg Asp Phe Leu Pro Ser Gly Asn Ser Pro  
                             35                            40                            45  
 Glu Lys Leu Lys Val Leu Gly Ala Ser His Gln Met Ser Leu Gly Asp  
                             50                            55                            60  
 Ala Gln Glu Ser Cys Ser Met Arg Cys Gly Ala Leu Asp Arg Pro Cys  
   65                            70                            75                            80  
 Ser Cys His Pro Thr Cys Ser Gly Leu Gly Thr Cys Cys Leu Asp Phe  
                             85                            90                            95  
 Gln Asp Phe Cys Leu Glu Ile Leu Pro Tyr Ser Val Ser Met Met Gly  
                             100                            105                            110  
 Gly Lys Asp Phe Val Val Arg His Phe Lys Met Ser Ser Pro Thr Asp  
                             115                            120                            125  
 Thr Ser Pro Gln Val Cys Met Pro Gln Glu Ser Ile Gln Thr Leu Gly  
                             130                            135                            140  
 His Val Asp Ser Ser Gly Gln Val His Phe Val Ser Pro Leu Leu Tyr  
   145                            150                            155                            160  
 Glu Ser Gly His Val Pro Phe Thr Ile Ser Leu Asp Asp Gly His Ser  
                             165                            170                            175

Phe Pro Arg Ala Gly Thr Trp Leu Ala Val His Pro Asn Lys Val Leu  
 180 185 190  
 Met Lys Glu Lys Ser Glu Leu Met Asn Glu Met His Trp Gln Tyr Tyr  
 195 200 205  
 Gly Thr Ala Asn Thr Ser Gly Asn Leu Ser Leu Thr Trp His Val Glu  
 210 215 220  
 Ala Leu Pro Thr Gln Thr Pro Ser Ser Cys Gly Ala Met Arg Arg Gln  
 225 230 235 240  
 Val Arg Lys Leu Asp Arg Glu Arg Val Gly Ala Trp Trp Arg Gly Ala  
 245 250 255  
 Trp Ala Arg His Pro Arg Gln Glu Ala Gly Glu His Ala Lys Arg Arg  
 260 265 270  
 Lys Gly His Ala Glu Thr Pro Arg Gly Arg Arg Lys Gly Arg Ala Gly  
 275 280 285  
 Arg Ser Ala Ala Ala Val Gly Glu Leu Arg Pro Ala Arg Arg Ser Leu  
 290 295 300  
 Glu Thr Ser Arg Ala Ala Ala Ala Met Ala Lys Asp Ser Pro Ser Pro  
 305 310 315 320  
 Leu Gly Ala Ser Pro Lys Lys Pro Gly Cys Ser Ser Pro Ala Ala Ala  
 325 330 335  
 Val Leu Glu Asn Gln Arg Arg Glu Leu Glu Lys Leu Arg Ala Glu Leu  
 340 345 350  
 Glu Ala Glu Arg Ala Gly Trp Arg Ala Glu Arg Arg Arg Phe Ala Ala  
 355 360 365  
 Arg Glu Arg Gln Leu Arg Glu Glu Ala Glu Arg Glu Arg Arg Gln Leu  
 370 375 380  
 Ala Asp Arg Leu Arg Ser Lys Trp Glu Ala Gln Arg Ser Arg Glu Leu  
 385 390 395 400  
 Arg Gln Leu Gln Glu Met Gln Arg Glu Arg Glu Ala Glu Ile Arg  
 405 410 415  
 Gln Leu Leu Arg Trp Lys Glu Ala Glu Gln Arg Gln Leu Gln Gln Leu  
 420 425 430  
 Leu His Arg Glu Arg Asp Gly Val Val Arg Gln Ala Arg Glu Leu Gln  
 435 440 445  
 Arg Gln Leu Ala Glu Glu Leu Val Asn Arg Gly His Cys Ser Arg Pro  
 450 455 460  
 Gly Ala Ser Glu Val Ser Ala Ala Gln Cys Arg Cys Arg Leu Gln Glu  
 465 470 475 480  
 Val Leu Ala Gln Leu Arg Trp Gln Thr Asp Gly Glu Gln Ala Ala Arg  
 485 490 495  
 Ile Arg Tyr Leu Gln Ala Ala Leu Glu Val Glu Arg Gln Leu Phe Leu  
 500 505 510  
 Lys Tyr Ile Leu Ala His Phe Arg Gly His Pro Ala Leu Ser Gly Ser  
 515 520 525  
 Pro Asp Pro Gln Ala Val His Ser Leu Glu Glu Pro Leu Pro Gln Thr  
 530 535 540  
 Ser Ser Gly Ser Cys His Ala Pro Lys Pro Ala Cys Gln Leu Gly Ser  
 545 550 555 560  
 Leu Asp Ser Leu Ser Ala Glu Val Gly Val Arg Ser Arg Ser Leu Gly  
 565 570 575  
 Leu Val Ser Ser Ala Cys Ser Ser Ser Pro Asp Gly Leu Leu Ser Thr  
 580 585 590  
 His Ala Ser Ser Leu Asp Cys Phe Ala Pro Ala Cys Ser Arg Ser Leu  
 595 600 605  
 Asp Ser Thr Arg Ser Leu Pro Lys Ala Ser Lys Ser Glu Glu Arg Pro  
 610 615 620  
 Ser Ser Pro Asp Thr Ser Thr Pro Gly Ser Arg Arg Leu Ser Pro Pro  
 625 630 635 640  
 Pro Ser Pro Leu Pro Pro Pro Pro Pro Ser Ala His Arg Lys Leu  
 645 650 655  
 Ser Asn Pro Arg Gly Gly Glu Gly Ser Glu Ser Gln Pro Cys Glu Val  
 660 665 670  
 Leu Thr Pro Ser Pro Pro Gly Leu Gly His His Glu Leu Ile Lys Leu  
 675 680 685



Asn	Trp	Leu	Leu	Ala	Lys	Ala	Leu	Trp	Val	Leu	Ala	Arg	Arg	Cys	Tyr
690						695					700				
Thr	Leu	Gln	Ala	Glu	Asn	Lys	Gln	Leu	Arg	Arg	Ala	Gly	Cys	Pro	Tyr
705					710					715					720
Gln	Ala	Asp	Glu	Lys	Val	Lys	Arg	Leu	Lys	Val	Lys	Arg	Ala	Glu	Leu
				725					730					735	
Thr	Gly	Leu	Ala	Arg	Arg	Leu	Ala	Asp	Arg	Ala	Arg	Lys	Leu	Gln	Glu
			740					745					750		
Thr	Asn	Leu	Arg	Ala	Val	Ser	Ala	Pro	Ile	Pro	Gly	Glu	Ser	Cys	Ala
		755					760					765			
Gly	Leu	Glu	Leu	Cys	Gln	Val	Phe	Ala	Arg	Gln	Arg	Ala	Arg	Asp	Leu
		770				775					780				
Ser	Glu	Gln	Ala	Ser	Ala	Pro	Leu	Ala	Lys	Asp	Lys	Gln	Ile	Glu	Glu
785					790					795					800
Leu	Arg	Gln	Glu	Cys	His	Leu	Leu	Gln	Ala	Arg	Val	Ala	Ser	Gly	Pro
				805						810				815	
Cys	Ser	Asp	Leu	His	Thr	Gly	Arg	Gly	Gly	Pro	Cys	Thr	Gln	Trp	Leu
			820					825					830		
Asn	Val	Arg	Asp	Leu	Asp	Arg	Leu	Gln	Arg	Glu	Ser	Gln	Arg	Glu	Val
		835					840					845			
Leu	Arg	Leu	Gln	Arg	Gln	Leu	Met	Leu	Gln	Gln	Gly	Asn	Gly	Gly	Ala
		850				855					860				
Trp	Pro	Glu	Ala	Gly	Gly	Gln	Ser	Ala	Thr	Cys	Glu	Glu	Val	Arg	Arg
865					870					875					880
Gln	Met	Leu	Ala	Leu	Glu	Arg	Glu	Leu	Asp	Gln	Arg	Arg	Arg	Glu	Cys
				885					890					895	
Gln	Glu	Leu	Gly	Ala	Gln	Ala	Ala	Pro	Ala	Arg	Arg	Arg	Gly	Glu	Glu
			900					905					910		
Ala	Glu	Thr	Gln	Leu	Gln	Ala	Ala	Leu	Leu	Lys	Asn	Ala	Trp	Leu	Ala
		915					920					925			
Glu	Glu	Asn	Gly	Arg	Leu	Gln	Ala	Lys	Thr	Asp	Trp	Val	Arg	Lys	Val
		930				935					940				
Glu	Ala	Glu	Asn	Ser	Glu	Val	Arg	Gly	His	Leu	Gly	Arg	Ala	Cys	Gln
945					950					955					960
Glu	Arg	Asp	Ala	Ser	Gly	Leu	Ile	Ala	Glu	Gln	Leu	Leu	Gln	Gln	Ala
				965					970					975	
Ala	Arg	Gly	Gln	Asp	Arg	Gln	Gln	Gln	Leu	Gln	Arg	Asp	Pro	Gln	Lys
			980					985					990		
Ala	Leu	Cys	Asp	Leu	His	Pro	Ser	Trp	Lys	Glu	Ile	Gln	Ala	Leu	Gln
		995				1000						1005			
Cys	Arg	Pro	Gly	His	Pro	Pro	Glu	Gln	Pro	Trp	Glu	Thr	Ser	Gln	Met
		1010				1015					1020				
Pro	Glu	Ser	Gln	Val	Lys	Gly	Ser	Arg	Arg	Pro	Lys	Phe	His	Ala	Arg
1025				1030						1035					1040
Pro	Glu	Asp	Tyr	Ala	Val	Ser	Gln	Pro	Asn	Arg	Asp	Ile	Gln	Glu	Lys
				1045					1050					1055	
Arg	Glu	Ala	Ser	Leu	Glu	Glu	Ser	Pro	Val	Ala	Leu	Gly	Glu	Ser	Ala
			1060					1065					1070		
Ser	Val	Pro	Gln	Val	Ser	Glu	Thr	Val	Pro	Ala	Ser	Gln	Pro	Leu	Ser
		1075					1080					1085			
Lys	Lys	Thr	Ser	Ser	Gln	Ser	Asn	Ser	Ser	Ser	Glu	Gly	Ser	Met	Trp
		1090				1095					1100				
Ala	Thr	Val	Pro	Ser	Ser	Pro	Thr	Leu	Asp	Arg	Asp	Thr	Ala	Ser	Glu
1105				1110						1115					1120
Val	Asp	Asp	Leu	Glu	Pro	Asp	Ser	Val	Ser	Leu	Ala	Leu	Glu	Met	Gly
				1125					1130					1135	
Gly	Ser	Ala	Ala	Pro	Ala	Ala	Pro	Lys	Leu	Lys	Ile	Phe	Met	Ala	Gln
			1140					1145					1150		
Tyr	Asn	Tyr	Asn	Pro	Phe	Glu	Gly	Pro	Asn	Asp	His	Pro	Glu	Gly	Glu
		1155					1160					1165			
Leu	Pro	Leu	Thr	Ala	Gly	Asp	Tyr	Ile	Tyr	Ile	Phe	Gly	Asp	Met	Asp
		1170				1175					1180				
Glu	Asp	Gly	Phe	Tyr	Glu	Gly	Glu	Leu	Glu	Asp	Gly	Arg	Arg	Gly	Leu
1185					1190					1195					1200

Val Pro Ser Asn Phe Val Glu Gln Ile Pro Asp Ser Tyr Ile Pro Gly  
 1205 1210 1215  
 Cys Leu Pro Ala Lys Ser Pro Asp Leu Gly Pro Ser Gln Leu Pro Ala  
 1220 1225 1230  
 Gly Gln Asp Glu Ala Leu Glu Glu Asp Ser Leu Leu Ser Gly Lys Ala  
 1235 1240 1245  
 Gln Gly Val Val Asp Arg Gly Leu Cys Gln Met Val Arg Val Gly Ser  
 1250 1255 1260  
 Lys Thr Glu Val Ala Thr Glu Ile Leu Asp Thr Lys Thr Glu Ala Cys  
 1265 1270 1275 1280  
 Gln Leu Gly Leu Leu Gln Ser Met Gly Lys Gln Gly Leu Ser Arg Pro  
 1285 1290 1295  
 Leu Leu Gly Thr Lys Gly Val Leu Arg Met Ala Pro Met Gln Leu His  
 1300 1305 1310  
 Leu Gln Asn Val Thr Ala Thr Ser Ala Asn Ile Thr Trp Val Tyr Ser  
 1315 1320 1325  
 Ser His Arg His Pro His Val Val Tyr Leu Asp Asp Arg Glu His Ala  
 1330 1335 1340  
 Leu Thr Pro Ala Gly Val Ser Cys Tyr Thr Phe Gln Gly Leu Cys Pro  
 1345 1350 1355 1360  
 Gly Thr His Tyr Arg Ala Arg Val Glu Val Arg Leu Pro Arg Asp Leu  
 1365 1370 1375  
 Leu Gln Val Tyr Trp Gly Thr Met Ser Ser Thr Val Thr Phe Asp Thr  
 1380 1385 1390  
 Leu Leu Ala Gly Pro Pro Tyr Pro Pro Leu Asp Val Leu Val Glu Arg  
 1395 1400 1405  
 His Ala Ser Pro Gly Val Leu Val Val Ser Trp Leu Pro Val Thr Ile  
 1410 1415 1420  
 Asp Ser Ala Gly Ser Ser Asn Gly Val Gln Val Thr Gly Tyr Ala Val  
 1425 1430 1435 1440  
 Tyr Ala Asp Gly Leu Lys Val Cys Glu Val Ala Asp Ala Thr Ala Gly  
 1445 1450 1455  
 Ser Thr Leu Leu Glu Phe Ser Gln Leu Gln Val Pro Leu Thr Trp Gln  
 1460 1465 1470  
 Lys Val Ser Val Arg Thr Met Ser Leu Cys Gly Glu Ser Leu Asp Ser  
 1475 1480 1485  
 Val Pro Ala Gln Ile Pro Glu Asp Phe Phe Met Cys His Arg Trp Pro  
 1490 1495 1500  
 Glu Thr Pro Pro Phe Ser Tyr Thr Cys Gly Asp Pro Ser Thr Tyr Arg  
 1505 1510 1515 1520  
 Val Thr Phe Pro Val Cys Pro Gln Lys Leu Ser Leu Ala Pro Pro Ser  
 1525 1530 1535  
 Ala Lys Ala Ser Pro His Asn Pro Gly Ser Cys Gly Glu Pro Gln Ala  
 1540 1545 1550  
 Lys Phe Leu Glu Ala Phe Phe Glu Glu Pro Pro Arg Arg Gln Ser Pro  
 1555 1560 1565  
 Val Ser Asn Leu Gly Ser Glu Gly Glu Cys Pro Ser Ser Gly Ala Gly  
 1570 1575 1580  
 Ser Gln Ala Gln Glu Leu Ala Glu Ala Trp Glu Gly Cys Arg Lys Asp  
 1585 1590 1595 1600  
 Leu Leu Phe Gln Lys Ser Pro Gln Asn His Arg Pro Pro Ser Val Ser  
 1605 1610 1615  
 Asp Gln Pro Gly Glu Lys Glu Asn Cys Ser Gln His Met Gly Thr Ser  
 1620 1625 1630  
 Lys Ser Pro Ala Pro Gly Phe Ile His Leu Arg Thr Glu Cys Gly Pro  
 1635 1640 1645  
 Arg Lys Glu Pro Cys Gln Glu Lys Ala Ala Leu Glu Arg Val Leu Arg  
 1650 1655 1660  
 Gln Lys Gln Asp Ala Gln Gly Phe Thr Pro Pro Gln Leu Gly Ala Ser  
 1665 1670 1675 1680  
 Gln Gln Tyr Ala Ser Asp Phe His Asn Val Leu Lys Glu Glu Gln Glu  
 1685 1690 1695  
 Ala Leu Cys Leu Asp Leu Trp Gly Thr Glu Arg Arg Glu Glu Arg Arg  
 1700 1705 1710

Glu Pro Glu Pro His Ser Arg Gln Gly Gln Ala Leu Gly Val Lys Arg  
 1715 1720 1725  
 Gly Cys Gln Leu His Glu Pro Ser Ser Ala Leu Cys Pro Ala Pro Ser  
 1730 1735 1740  
 Ala Lys Val Ile Lys Met Pro Arg Gly Gly Pro Gln Gln Leu Gly Thr  
 1745 1750 1755 1760  
 Gly Ala Asn Thr Pro Ala Arg Val Phe Val Ala Leu Ser Asp Tyr Asn  
 1765 1770 1775  
 Pro Leu Val Met Ser Ala Asn Leu Lys Ala Ala Glu Glu Glu Leu Val  
 1780 1785 1790  
 Phe Gln Lys Arg Gln Leu Leu Arg Val Trp Gly Ser Gln Asp Thr His  
 1795 1800 1805  
 Asp Phe Tyr Leu Ser Glu Cys Asn Arg Gln Val Gly Asn Ile Pro Gly  
 1810 1815 1820  
 Arg Leu Val Ala Glu Met Glu Val Gly Thr Glu Gln Thr Asp Arg Arg  
 1825 1830 1835 1840  
 Trp Arg Ser Pro Ala Gln Gly His Leu Pro Ser Val Ala His Leu Glu  
 1845 1850 1855  
 Asp Phe Gln Gly Leu Thr Ile Pro Gln Gly Ser Ser Leu Val Leu Gln  
 1860 1865 1870  
 Gly Asn Ser Lys Arg Leu Pro Leu Trp Thr Pro Lys Ile Met Ile Ala  
 1875 1880 1885  
 Ala Leu Asp Tyr Asp Pro Gly Asp Gly Gln Met Gly Gly Gln Gly Lys  
 1890 1895 1900  
 Gly Arg Leu Ala Leu Arg Ala Gly Asp Val Val Met Val Tyr Gly Pro  
 1905 1910 1915 1920  
 Met Asp Asp Gln Gly Phe Tyr Tyr Gly Glu Leu Gly Gly His Arg Gly  
 1925 1930 1935  
 Leu Val Pro Ala His Leu Leu Asp His Met Ser Leu His Gly His \*  
 1940 1945 1950 1951

<210> 1498  
 <211> 354  
 <212> PRT  
 <213> Homo sapiens

<400> 1498  
 Met Ser Lys Pro Pro Asp Leu Leu Leu Arg Leu Leu Arg Gly Ala Pro  
 1 5 10 15  
 Arg Gln Arg Val Cys Thr Leu Phe Ile Ile Gly Phe Lys Phe Thr Phe  
 20 25 30  
 Phe Val Ser Ile Val Ile Tyr Trp His Val Val Gly Glu Pro Lys Glu  
 35 40 45  
 Lys Gly Gln Leu Tyr Asn Leu Pro Ala Glu Ile Pro Cys Pro Thr Leu  
 50 55 60  
 Thr Pro Pro Thr Pro Pro Ser His Gly Pro Thr Pro Gly Asn Ile Phe  
 65 70 75 80  
 Phe Leu Glu Thr Ser Asp Arg Thr Asn Pro Asn Phe Leu Phe Met Cys  
 85 90 95  
 Ser Val Glu Ser Ala Ala Arg Thr His Pro Glu Ser His Val Leu Val  
 100 105 110  
 Leu Met Lys Gly Leu Pro Gly Gly Asn Ala Ser Leu Pro Arg His Leu  
 115 120 125  
 Gly Ile Ser Leu Leu Ser Cys Phe Pro Asn Val Gln Met Leu Pro Leu  
 130 135 140  
 Asp Leu Arg Glu Leu Phe Arg Asp Thr Pro Leu Ala Asp Trp Tyr Ala  
 145 150 155 160  
 Ala Val Gln Gly Arg Trp Glu Pro Tyr Leu Leu Pro Val Leu Ser Asp  
 165 170 175  
 Ala Ser Arg Ile Ala Leu Met Trp Lys Phe Gly Gly Ile Tyr Leu Asp  
 180 185 190

Thr Asp Phe Ile Val Leu Lys Asn Leu Arg Asn Leu Thr Asn Val Leu  
 195 200 205  
 Gly Thr Gln Ser Arg Tyr Val Leu Asn Gly Ala Phe Leu Ala Phe Glu  
 210 215 220  
 Arg Arg His Glu Phe Met Ala Leu Cys Met Arg Asp Phe Val Asp His  
 225 230 235 240  
 Tyr Asn Gly Trp Ile Trp Gly His Gln Gly Pro Gln Leu Leu Thr Arg  
 245 250 255  
 Val Phe Lys Lys Trp Cys Ser Ile Arg Ser Leu Ala Glu Ser Arg Ala  
 260 265 270  
 Cys Arg Gly Val Thr Thr Leu Pro Pro Glu Ala Phe Tyr Pro Ile Pro  
 275 280 285  
 Trp Gln Asp Trp Lys Lys Tyr Phe Glu Asp Ile Asn Pro Glu Glu Leu  
 290 295 300  
 Pro Arg Leu Leu Ser Ala Thr Tyr Ala Val His Val Trp Asn Lys Lys  
 305 310 315 320  
 Ser Gln Gly Thr Arg Phe Glu Ala Thr Ser Arg Ala Leu Leu Ala Gln  
 325 330 335  
 Leu His Ala Arg Tyr Cys Pro Thr Thr His Glu Ala Met Lys Met Tyr  
 340 345 350  
 Leu \*  
 353

&lt;210&gt; 1499

&lt;211&gt; 528

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1499

Met Ala Lys Val Ile Leu Lys Gln Ser Lys Gln Cys Lys Asn Leu Leu  
 1 5 10 15  
 Thr Cys Lys Val Ala Gln Val Cys Pro Val Cys Gly Cys Leu His Cys  
 20 25 30  
 Tyr Phe Trp Trp Leu Ser Gly Leu Glu Ser Arg Arg Pro Ser Ser Pro  
 35 40 45  
 Leu Ile Asp Ile Lys Pro Ile Glu Phe Gly Val Leu Ser Ala Lys Lys  
 50 55 60  
 Glu Pro Ile Gln Pro Ser Val Leu Arg Arg Thr Tyr Asn Pro Asp Asp  
 65 70 75 80  
 Tyr Phe Arg Lys Phe Glu Pro His Leu Tyr Ser Leu Asp Ser Asn Ser  
 85 90 95  
 Asp Asp Val Asp Ser Leu Thr Asp Glu Glu Ile Leu Ser Lys Tyr Gln  
 100 105 110  
 Leu Gly Met Leu His Phe Ser Thr Gln Tyr Asp Leu Leu His Asn His  
 115 120 125  
 Leu Thr Val Arg Val Ile Glu Ala Arg Asp Leu Pro Pro Pro Ile Ser  
 130 135 140  
 His Asp Gly Ser Arg Gln Asp Met Ala His Ser Asn Pro Tyr Val Lys  
 145 150 155 160  
 Ile Cys Leu Leu Pro Asp Gln Lys Asn Ser Lys Gln Thr Gly Val Lys  
 165 170 175  
 Arg Lys Thr Gln Lys Pro Val Phe Glu Glu Arg Tyr Thr Phe Glu Ile  
 180 185 190  
 Pro Phe Leu Glu Ala Gln Arg Arg Thr Leu Leu Leu Thr Val Val Asp  
 195 200 205  
 Phe Asp Lys Phe Ser Arg His Cys Val Ile Gly Lys Val Ser Val Pro  
 210 215 220  
 Leu Cys Glu Val Asp Leu Val Lys Gly Gly His Trp Trp Lys Ala His  
 225 230 235 240  
 Asp Ser Gln Phe Ser Ala Pro Gly Leu Pro Ala Asp Gln Gln Phe Phe  
 245 250 255

Ala Asp Leu Phe Ser Gly Leu Val Leu Asn Pro Gln Leu Leu Gly Arg  
 260 265 270  
 Val Trp Phe Ala Ser Gln Pro Ala Ser Leu Pro Val Gly Ser Leu Cys  
 275 280 285  
 Ile Asp Phe Pro Arg Leu Asp Ile Val Leu Arg Gly Glu Tyr Gly Asn  
 290 295 300  
 Leu Leu Glu Ala Lys Gln Gln Arg Leu Val Glu Gly Glu Met Leu Phe  
 305 310 315 320  
 Ile Pro Ala Arg Ala Ala Asn Leu Pro Val Asn Asn Lys Pro Val Met  
 325 330 335  
 Leu Leu Ser Leu Val Phe Ala Pro Thr Trp Leu Gly Leu Ser Phe Tyr  
 340 345 350  
 Asp Ser Arg Thr Thr Ser Leu Leu His Pro Ala Arg Gln Ile Gln Leu  
 355 360 365  
 Pro Ser Leu Gln Arg Gly Glu Gly Glu Ala Met Leu Thr Ala Leu Thr  
 370 375 380  
 His Leu Ser Arg Ser Pro Leu Glu Gln Asn Ile Ile Gln Pro Leu Val  
 385 390 395 400  
 Leu Ser Leu Leu His Leu Cys Arg Ser Val Val Asn Met Pro Pro Gly  
 405 410 415  
 Asn Ser Gln Pro Arg Gly Asp Phe Leu Tyr His Ser Ile Cys Asn Trp  
 420 425 430  
 Val Gln Asp Asn Tyr Ala Gln Pro Leu Thr Arg Glu Ser Val Ala Gln  
 435 440 445  
 Phe Phe Asn Ile Thr Pro Asn His Leu Ser Lys Leu Phe Ala Gln His  
 450 455 460  
 Gly Thr Met Arg Phe Ile Glu Tyr Val Arg Trp Val Arg Met Ala Lys  
 465 470 475 480  
 Ala Arg Met Ile Leu Gln Lys Tyr His Leu Ser Ile His Glu Val Ala  
 485 490 495  
 Gln Arg Cys Gly Phe Pro Asp Ser Asp Tyr Phe Cys Arg Val Phe Arg  
 500 505 510  
 Arg Gln Phe Gly Leu Thr Pro Gly Glu Tyr Ser Ala Arg Phe Gln Gly  
 515 520 525 528

&lt;210&gt; 1500

&lt;211&gt; 1008

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1500

Met Ser Arg Arg Lys Gln Arg Lys Pro Gln Gln Leu Ile Ser Asp Cys  
 1 5 10 15  
 Glu Gly Pro Ser Ala Ser Glu Asn Gly Asp Ala Ser Glu Glu Asp His  
 20 25 30  
 Pro Gln Val Cys Ala Lys Cys Cys Ala Gln Phe Thr Asp Pro Thr Glu  
 35 40 45  
 Phe Leu Ala His Gln Asn Ala Cys Ser Thr Asp Pro Pro Val Met Val  
 50 55 60  
 Ile Ile Gly Gly Gln Glu Asn Pro Asn Asn Ser Ser Ala Ser Ser Glu  
 65 70 75 80  
 Pro Arg Pro Glu Gly His Asn Asn Pro Gln Val Met Asp Thr Glu His  
 85 90 95  
 Ser Asn Pro Pro Asp Ser Gly Ser Ser Val Pro Thr Asp Pro Thr Trp  
 100 105 110  
 Gly Pro Glu Arg Arg Gly Glu Glu Ser Ser Gly His Phe Leu Val Ala  
 115 120 125  
 Ala Thr Gly Thr Ala Ala Gly Gly Gly Gly Gly Leu Ile Leu Ala Ser  
 130 135 140

Pro Lys Leu Gly Ala Thr Pro Leu Pro Pro Glu Ser Thr Pro Ala Pro  
 145 150 155 160  
 Pro Pro Pro Pro Pro Pro Pro Pro Pro Gly Val Gly Ser Gly His  
 165 170 175  
 Leu Asn Ile Pro Leu Ile Leu Glu Glu Leu Arg Val Leu Gln Gln Arg  
 180 185 190  
 Gln Ile His Gln Met Gln Met Thr Glu Gln Ile Cys Arg Gln Val Leu  
 195 200 205  
 Leu Leu Gly Ser Leu Gly Gln Thr Val Gly Ala Pro Ala Ser Pro Ser  
 210 215 220  
 Glu Leu Pro Gly Thr Gly Thr Ala Ser Ser Thr Lys Pro Leu Leu Pro  
 225 230 235 240  
 Leu Phe Ser Pro Ile Lys Pro Val Gln Thr Ser Lys Thr Leu Ala Ser  
 245 250 255  
 Ser Ser Ser Ser Ser Ser Ser Ser Ser Gly Ala Glu Thr Pro Lys Gln  
 260 265 270  
 Ala Phe Phe His Leu Tyr His Pro Leu Gly Ser Gln His Pro Phe Ser  
 275 280 285  
 Ala Gly Gly Val Gly Arg Ser His Lys Pro Thr Pro Ala Pro Ser Pro  
 290 295 300  
 Ala Leu Pro Gly Ser Thr Asp Gln Leu Ile Ala Ser Pro His Leu Ala  
 305 310 315 320  
 Phe Pro Ser Thr Thr Gly Leu Leu Ala Ala Gln Cys Leu Gly Ala Ala  
 325 330 335  
 Arg Gly Leu Glu Ala Thr Ala Ser Pro Gly Leu Leu Lys Pro Lys Asn  
 340 345 350  
 Gly Ser Gly Glu Leu Ser Tyr Gly Glu Val Met Gly Pro Leu Glu Lys  
 355 360 365  
 Pro Gly Gly Arg His Lys Cys Arg Phe Cys Ala Lys Val Phe Gly Ser  
 370 375 380  
 Asp Ser Ala Leu Gln Ile His Leu Arg Ser His Thr Gly Glu Arg Pro  
 385 390 395 400  
 Tyr Lys Cys Asn Val Cys Gly Asn Arg Phe Thr Thr Arg Gly Asn Leu  
 405 410 415  
 Lys Val His Phe His Arg His Arg Glu Lys Tyr Pro His Val Gln Met  
 420 425 430  
 Asn Pro His Pro Val Pro Glu His Leu Asp Tyr Val Ile Thr Ser Ser  
 435 440 445  
 Gly Leu Pro Tyr Gly Met Ser Val Pro Pro Glu Lys Ala Glu Glu Glu  
 450 455 460  
 Ala Ala Thr Pro Gly Gly Val Glu Arg Lys Pro Leu Val Ala Ser  
 465 470 475 480  
 Thr Thr Ala Leu Ser Ala Thr Glu Ser Leu Thr Leu Leu Ser Thr Ser  
 485 490 495  
 Ala Gly Thr Ala Thr Ala Pro Gly Leu Pro Ala Phe Asn Lys Phe Val  
 500 505 510  
 Leu Met Lys Ala Val Glu Pro Lys Asn Lys Ala Asp Glu Asn Thr Pro  
 515 520 525  
 Pro Gly Ser Glu Gly Ser Ala Ile Ser Gly Val Ala Glu Ser Ser Thr  
 530 535 540  
 Ala Thr Leu Met Gln Leu Ser Lys Leu Met Thr Ser Leu Pro Ser Trp  
 545 550 555 560  
 Ala Leu Leu Thr Asn His Phe Lys Ser Thr Gly Ser Phe Pro Leu Pro  
 565 570 575  
 Leu Cys Ala Arg Ala Leu Gly Ala Ser Pro Ser Glu Thr Ser Lys Leu  
 580 585 590  
 Gln Gln Leu Val Glu Lys Ile Asp Arg Gln Gly Ala Val Ala Val Thr  
 595 600 605  
 Ser Ala Ala Ser Gly Ala Pro Thr Thr Ser Ala Pro Ala Pro Ser Ser  
 610 615 620  
 Ser Ala Ser Ser Gly Pro Asn Gln Cys Val Ile Cys Leu Arg Val Leu  
 625 630 635 640  
 Ser Cys Pro Arg Ala Leu Arg Leu His Tyr Gly Gln His Gly Gly Glu  
 645 650 655

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Arg Pro Phe Lys Cys Lys Val Cys Gly Arg Ala Phe Ser Thr Arg Gly
      660      665      670
Asn Leu Arg Ala His Phe Val Gly His Lys Ala Ser Pro Ala Ala Arg
      675      680      685
Ala Gln Asn Ser Cys Pro Ile Cys Gln Lys Lys Phe Thr Asn Ala Val
      690      695      700
Thr Leu Gln Gln His Val Arg Met His Leu Gly Gly Gln Ile Pro Asn
      705      710      715      720
Gly Gly Thr Ala Leu Pro Glu Gly Gly Gly Ala Ala Gln Glu Asn Gly
      725      730      735
Ser Glu Gln Ser Thr Val Ser Gly Ala Gly Ser Phe Pro Gln Gln Gln
      740      745      750
Ser Gln Gln Pro Ser Pro Glu Glu Leu Ser Glu Glu Glu Glu
      755      760      765
Glu Asp Glu Glu Glu Glu Glu Asp Val Thr Asp Glu Asp Ser Leu Ala
      770      775      780
Gly Arg Gly Ser Glu Ser Gly Gly Glu Lys Ala Ile Ser Val Arg Gly
      785      790      795      800
Asp Ser Glu Glu Ala Ser Gly Ala Glu Glu Glu Val Gly Thr Val Ala
      805      810      815
Ala Ala Ala Thr Ala Gly Lys Glu Met Asp Ser Asn Glu Lys Thr Thr
      820      825      830
Gln Gln Ser Ser Leu Pro Pro Pro Pro Pro Pro Asp Ser Leu Asp Gln
      835      840      845
Pro Gln Pro Met Glu Gln Gly Ser Ser Gly Val Leu Gly Gly Lys Glu
      850      855      860
Glu Gly Gly Lys Pro Glu Arg Ser Ser Ser Pro Ala Ser Ala Leu Thr
      865      870      875      880
Pro Glu Gly Glu Ala Thr Ser Val Thr Leu Val Glu Glu Leu Ser Leu
      885      890      895
Gln Glu Ala Met Arg Lys Glu Pro Gly Glu Ser Ser Ser Arg Lys Ala
      900      905      910
Cys Glu Val Cys Gly Gln Ala Phe Pro Ser Gln Ala Ala Leu Glu Glu
      915      920      925
His Gln Lys Thr His Pro Lys Glu Gly Pro Leu Phe Thr Cys Val Phe
      930      935      940
Cys Arg Gln Gly Phe Leu Glu Arg Ala Thr Leu Lys Lys His Met Leu
      945      950      955      960
Leu Ala His His Gln Val Gln Pro Phe Ala Pro His Gly Pro Gln Asn
      965      970      975
Ile Ala Ala Leu Ser Leu Val Pro Gly Cys Ser Pro Ser Ile Thr Ser
      980      985      990
Thr Gly Leu Ser Pro Phe Pro Arg Lys Asp Asp Pro Thr Ile Pro *
      995      1000      1005      1007

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&lt;210&gt; 1501

&lt;211&gt; 1886

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1501

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Met Arg Pro Leu Ser Phe Ala Leu Phe Leu Gly Asp Pro Asn Met Ala
  1          5          10          15
Asn Leu Glu Glu Ser Phe Pro Arg Gly Gly Thr Arg Lys Ile His Lys
      20          25          30
Pro Glu Lys Ala Phe Gln Gln Ser Val Glu Gln Asp Asn Leu Phe Asp
      35          40          45
Ile Ser Thr Glu Glu Gly Ser Thr Lys Arg Lys Lys Ser Gln Lys Gly
      50          55          60
Pro Ala Lys Thr Lys Lys Leu Lys Ile Glu Lys Arg Glu Ser Ser Lys
      65          70          75          80

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Ser Ala Arg Glu Lys Phe Glu Ile Leu Ser Val Glu Ser Leu Cys Glu  
 85 90 95  
 Gly Met Arg Ile Leu Gly Cys Val Lys Glu Val Asn Glu Leu Glu Leu  
 100 105 110  
 Val Ile Ser Leu Pro Asn Gly Leu Gln Gly Phe Val Gln Val Thr Glu  
 115 120 125  
 Ile Cys Asp Ala Tyr Thr Lys Lys Leu Asn Glu Gln Val Thr Gln Glu  
 130 135 140  
 Gln Pro Leu Lys Asp Leu Leu His Leu Pro Glu Leu Phe Ser Pro Gly  
 145 150 155 160  
 Met Leu Val Arg Cys Val Val Ser Ser Leu Gly Ile Thr Asp Arg Gly  
 165 170 175  
 Lys Lys Ser Val Lys Leu Ser Leu Asn Pro Lys Asn Val Asn Arg Val  
 180 185 190  
 Leu Ser Ala Glu Ala Leu Lys Pro Gly Met Leu Leu Thr Gly Thr Val  
 195 200 205  
 Ser Ser Leu Glu Asp His Gly Tyr Leu Val Asp Ile Gly Val Asp Gly  
 210 215 220  
 Thr Arg Ala Phe Leu Pro Leu Leu Lys Ala Gln Glu Tyr Ile Arg Gln  
 225 230 235 240  
 Lys Asn Lys Gly Ala Lys Leu Lys Val Gly Gln Tyr Leu Asn Cys Ile  
 245 250 255  
 Val Glu Lys Val Lys Gly Asn Gly Gly Val Val Ser Leu Ser Val Gly  
 260 265 270  
 His Ser Glu Val Ser Thr Ala Ile Ala Thr Glu Gln Gln Ser Trp Asn  
 275 280 285  
 Leu Asn Asn Leu Leu Pro Gly Leu Val Val Lys Ala Gln Val Gln Lys  
 290 295 300  
 Val Thr Pro Phe Gly Leu Thr Leu Asn Phe Leu Thr Phe Phe Thr Gly  
 305 310 315 320  
 Val Val Asp Phe Met His Leu Asp Pro Lys Lys Ala Gly Thr Tyr Phe  
 325 330 335  
 Ser Asn Gln Ala Val Arg Ala Cys Ile Leu Cys Val His Pro Arg Thr  
 340 345 350  
 Arg Val Val His Leu Ser Leu Arg Pro Ile Phe Leu Gln Pro Gly Arg  
 355 360 365  
 Pro Leu Thr Arg Leu Ser Cys Gln Asn Leu Gly Ala Val Leu Asp Asp  
 370 375 380  
 Val Pro Val Gln Gly Phe Phe Lys Lys Ala Gly Ala Thr Phe Arg Leu  
 385 390 395 400  
 Lys Asp Gly Val Leu Ala Tyr Ala Arg Leu Ser His Leu Ser Asp Ser  
 405 410 415  
 Lys Asn Val Phe Asn Pro Glu Ala Phe Lys Pro Gly Asn Thr His Lys  
 420 425 430  
 Cys Arg Ile Ile Asp Tyr Ser Gln Met Asp Glu Leu Ala Leu Leu Ser  
 435 440 445  
 Leu Arg Thr Ser Ile Ile Glu Ala Gln Tyr Leu Arg Tyr His Asp Ile  
 450 455 460  
 Glu Pro Gly Ala Val Val Lys Gly Thr Val Leu Thr Ile Lys Ser Tyr  
 465 470 475 480  
 Gly Met Leu Val Lys Val Gly Glu Gln Met Arg Gly Leu Val Pro Pro  
 485 490 495  
 Met His Leu Ala Asp Ile Leu Met Lys Asn Pro Glu Lys Lys Tyr His  
 500 505 510  
 Ile Gly Asp Glu Val Lys Cys Arg Val Leu Leu Cys Asp Pro Glu Ala  
 515 520 525  
 Lys Lys Leu Met Met Thr Leu Lys Lys Thr Leu Ile Glu Ser Lys Leu  
 530 535 540  
 Pro Val Ile Thr Cys Tyr Ala Asp Ala Lys Pro Gly Leu Gln Thr His  
 545 550 555 560  
 Gly Phe Ile Ile Arg Val Lys Asp Tyr Gly Cys Ile Val Lys Phe Tyr  
 565 570 575  
 Asn Asn Val Gln Gly Leu Val Pro Lys His Glu Leu Ser Thr Glu Tyr  
 580 585 590



Ile Pro Asp Pro Glu Arg Val Phe Tyr Thr Gly Gln Val Val Lys Val  
 595 600 605  
 Val Val Leu Asn Cys Glu Pro Ser Lys Glu Arg Met Leu Leu Ser Phe  
 610 615 620  
 Lys Leu Ser Ser Asp Pro Glu Pro Lys Lys Glu Pro Ala Gly His Ser  
 625 630 635 640  
 Gln Lys Lys Gly Lys Ala Ile Asn Ile Gly Gln Leu Val Asp Val Lys  
 645 650 655  
 Val Leu Glu Lys Thr Lys Asp Gly Leu Glu Val Ala Val Leu Pro His  
 660 665 670  
 Asn Ile Arg Ala Phe Leu Pro Thr Ser His Leu Ser Asp His Val Ala  
 675 680 685  
 Asn Gly Pro Leu Leu His His Trp Leu Gln Ala Gly Asp Ile Leu His  
 690 695 700  
 Arg Val Leu Cys Leu Ser Gln Ser Glu Gly Arg Val Leu Leu Cys Arg  
 705 710 715 720  
 Lys Pro Ala Leu Val Ser Thr Val Glu Gly Gly Gln Asp Pro Lys Asn  
 725 730 735  
 Phe Ser Glu Ile His Pro Gly Met Leu Leu Ile Gly Phe Val Lys Ser  
 740 745 750  
 Ile Lys Asp Tyr Gly Val Phe Ile Gln Phe Pro Ser Gly Leu Ser Gly  
 755 760 765  
 Leu Ala Pro Lys Ala Ile Met Ser Asp Lys Phe Val Thr Ser Thr Ser  
 770 775 780  
 Asp His Phe Val Glu Gly Gln Thr Val Ala Ala Lys Val Thr Asn Val  
 785 790 795 800  
 Asp Glu Glu Lys Gln Arg Met Leu Leu Ser Leu Arg Leu Ser Asp Cys  
 805 810 815  
 Gly Leu Gly Asp Leu Ala Ile Thr Ser Leu Leu Leu Leu Asn Gln Cys  
 820 825 830  
 Leu Glu Glu Leu Gln Gly Val Arg Ser Leu Met Ser Asn Arg Asp Ser  
 835 840 845  
 Val Leu Ile Gln Thr Leu Ala Glu Met Thr Pro Gly Met Phe Leu Asp  
 850 855 860  
 Leu Val Val Gln Glu Val Leu Glu Asp Gly Ser Val Val Phe Ser Gly  
 865 870 875 880  
 Gly Pro Val Pro Asp Leu Val Leu Lys Ala Ser Arg Tyr His Arg Ala  
 885 890 895  
 Gly Gln Glu Val Glu Ser Gly Gln Lys Lys Val Val Ile Leu Asn  
 900 905 910  
 Val Asp Leu Leu Lys Leu Glu Val His Val Ser Leu His Gln Asp Leu  
 915 920 925  
 Val Asn Arg Lys Ala Arg Lys Leu Arg Lys Gly Ser Glu His Gln Ala  
 930 935 940  
 Ile Val Gln His Leu Glu Lys Ser Phe Ala Ile Ala Ser Leu Val Glu  
 945 950 955 960  
 Thr Gly His Leu Ala Ala Phe Ser Leu Thr Ser His Leu Asn Asp Thr  
 965 970 975  
 Phe Arg Phe Asp Ser Glu Lys Leu Gln Val Gly Gln Gly Val Ser Leu  
 980 985 990  
 Thr Leu Lys Thr Thr Glu Pro Gly Val Thr Gly Leu Leu Leu Ala Val  
 995 1000 1005  
 Glu Gly Pro Ala Ala Lys Arg Thr Met Arg Pro Thr Gln Lys Asp Ser  
 1010 1015 1020  
 Glu Thr Val Asp Glu Asp Glu Glu Val Asp Pro Ala Leu Thr Val Gly  
 1025 1030 1035 1040  
 Thr Ile Lys Lys His Thr Leu Ser Ile Gly Asp Met Val Thr Gly Thr  
 1045 1050 1055  
 Val Lys Ser Ile Lys Pro Thr His Val Val Val Thr Leu Glu Asp Gly  
 1060 1065 1070  
 Ile Ile Gly Cys Ile His Ala Ser His Ile Leu Asp Asp Val Pro Glu  
 1075 1080 1085  
 Gly Thr Ser Pro Thr Thr Lys Leu Lys Val Gly Lys Thr Val Thr Ala  
 1090 1095 1100

Arg Val Ile Gly Gly Arg Asp Met Lys Thr Phe Lys Tyr Leu Pro Ile  
 1105 1110 1115 1120  
 Ser His Pro Arg Phe Val Arg Thr Ile Pro Glu Leu Ser Val Arg Pro  
 1125 1130 1135  
 Ser Glu Leu Glu Asp Gly His Thr Ala Leu Asn Thr His Ser Val Ser  
 1140 1145 1150  
 Pro Met Glu Lys Ile Lys Gln Tyr Gln Ala Gly Gln Thr Val Thr Cys  
 1155 1160 1165  
 Phe Leu Lys Lys Tyr Asn Val Val Lys Lys Trp Leu Glu Val Glu Ile  
 1170 1175 1180  
 Ala Pro Asp Ile Arg Gly Arg Ile Pro Leu Leu Leu Thr Ser Leu Ser  
 1185 1190 1195 1200  
 Phe Lys Val Leu Lys His Pro Asp Lys Lys Phe Arg Val Gly Gln Ala  
 1205 1210 1215  
 Leu Arg Ala Thr Val Val Gly Pro Asp Ser Ser Lys Thr Phe Leu Cys  
 1220 1225 1230  
 Leu Ser Leu Thr Gly Pro His Lys Leu Glu Glu Gly Glu Val Ala Met  
 1235 1240 1245  
 Gly Arg Val Val Lys Val Thr Pro Asn Glu Gly Leu Thr Val Ser Phe  
 1250 1255 1260  
 Pro Phe Gly Lys Ile Gly Thr Val Ser Ile Phe His Met Ser Asp Ser  
 1265 1270 1275 1280  
 Tyr Ser Glu Thr Pro Leu Glu Asp Phe Val Pro Gln Lys Val Val Arg  
 1285 1290 1295  
 Cys Tyr Ile Leu Ser Thr Ala Asp Asn Val Leu Thr Leu Ser Leu Arg  
 1300 1305 1310  
 Ser Ser Arg Thr Asn Pro Glu Thr Lys Ser Lys Val Glu Asp Pro Glu  
 1315 1320 1325  
 Ile Asn Ser Ile Gln Asp Ile Lys Glu Gly Gln Leu Leu Arg Gly Tyr  
 1330 1335 1340  
 Val Gly Ser Ile Gln Pro His Gly Val Phe Phe Arg Leu Gly Pro Ser  
 1345 1350 1355 1360  
 Val Val Gly Leu Ala Arg Tyr Ser His Val Ser Gln His Ser Pro Ser  
 1365 1370 1375  
 Lys Lys Ala Leu Tyr Asn Lys His Leu Pro Glu Gly Lys Leu Leu Thr  
 1380 1385 1390  
 Ala Arg Val Leu Arg Leu Asn His Gln Lys Asn Leu Val Glu Leu Ser  
 1395 1400 1405  
 Phe Leu Pro Gly Asp Thr Gly Lys Pro Asp Val Leu Ser Ala Ser Leu  
 1410 1415 1420  
 Glu Gly Gln Leu Thr Lys Gln Glu Glu Arg Lys Thr Glu Ala Glu Glu  
 1425 1430 1435 1440  
 Arg Asp Gln Lys Gly Glu Lys Lys Asn Gln Lys Arg Asn Glu Lys Lys  
 1445 1450 1455  
 Asn Gln Lys Gly Gln Glu Glu Val Glu Met Pro Ser Lys Glu Lys Gln  
 1460 1465 1470  
 Gln Pro Gln Lys Pro Gln Ala Gln Lys Arg Gly Gly Arg Glu Cys Arg  
 1475 1480 1485  
 Glu Ser Gly Ser Glu Gln Glu Arg Val Ser Lys Lys Pro Lys Lys Ala  
 1490 1495 1500  
 Gly Leu Ser Glu Glu Asp Asp Ser Leu Val Asp Val Tyr Tyr Arg Glu  
 1505 1510 1515 1520  
 Gly Lys Glu Glu Ala Glu Glu Thr Asn Val Leu Pro Lys Glu Lys Gln  
 1525 1530 1535  
 Thr Lys Pro Ala Glu Ala Pro Arg Leu Gln Leu Ser Ser Gly Phe Ala  
 1540 1545 1550  
 Trp Asn Val Gly Leu Asp Ser Leu Thr Pro Ala Leu Pro Pro Leu Ala  
 1555 1560 1565  
 Glu Ser Ser Asp Ser Glu Glu Asp Glu Lys Pro His Gln Ala Thr Ile  
 1570 1575 1580  
 Lys Lys Ser Lys Lys Glu Arg Glu Leu Glu Lys Gln Lys Ala Glu Lys  
 1585 1590 1595 1600  
 Glu Leu Ser Arg Ile Glu Glu Ala Leu Met Asp Pro Gly Arg Gln Pro  
 1605 1610 1615

Glu Ser Ala Asp Asp Phe Asp Arg Leu Val Leu Ser Ser Pro Asn Ser  
 1620 1625 1630  
 Ser Ile Leu Trp Leu Gln Tyr Met Ala Phe His Leu Gln Ala Thr Glu  
 1635 1640 1645  
 Ile Glu Lys Ala Arg Ala Val Ala Glu Arg Ala Leu Lys Thr Ile Ser  
 1650 1655 1660  
 Phe Arg Glu Glu Gln Glu Lys Leu Asn Val Trp Val Ala Leu Leu Asn  
 1665 1670 1675 1680  
 Leu Glu Asn Met Tyr Gly Ser Gln Glu Ser Leu Thr Lys Val Phe Glu  
 1685 1690 1695  
 Arg Ala Val Gln Tyr Asn Glu Pro Leu Lys Val Phe Leu His Leu Ala  
 1700 1705 1710  
 Asp Ile Tyr Ala Lys Ser Glu Lys Phe Gln Glu Ala Gly Glu Leu Tyr  
 1715 1720 1725  
 Asn Arg Met Leu Lys Arg Phe Arg Gln Glu Lys Ala Val Trp Ile Lys  
 1730 1735 1740  
 Tyr Gly Ala Phe Leu Leu Arg Arg Ser Gln Ala Ala Ala Ser His Arg  
 1745 1750 1755 1760  
 Val Leu Gln Arg Ala Leu Glu Cys Leu Pro Ser Lys Glu His Val Asp  
 1765 1770 1775  
 Val Ile Ala Lys Phe Ala Gln Leu Glu Phe Gln Leu Gly Asp Ala Glu  
 1780 1785 1790  
 Arg Ala Lys Ala Ile Phe Glu Asn Thr Leu Ser Thr Tyr Pro Lys Arg  
 1795 1800 1805  
 Thr Asp Val Trp Ser Val Tyr Ile Asp Met Thr Ile Lys His Gly Ser  
 1810 1815 1820  
 Gln Lys Asp Val Arg Asp Ile Phe Glu Arg Val Ile His Leu Ser Leu  
 1825 1830 1835 1840  
 Ala Pro Lys Arg Met Lys Phe Phe Phe Lys Arg Tyr Leu Asp Tyr Glu  
 1845 1850 1855  
 Lys Gln His Gly Thr Glu Lys Asp Val Gln Ala Val Lys Ala Lys Ala  
 1860 1865 1870  
 Leu Glu Tyr Val Glu Ala Lys Ser Ser Val Leu Glu Asp \*  
 1875 1880 1885

<210> 1502  
 <211> 359  
 <212> PRT  
 <213> Homo sapiens

<400> 1502  
 Met Asp Asp Ala Thr Val Leu Arg Lys Lys Gly Tyr Ile Val Gly Ile  
 1 5 10 15  
 Asn Leu Gly Lys Gly Ser Tyr Ala Lys Val Lys Ser Ala Tyr Ser Glu  
 20 25 30  
 Arg Leu Lys Phe Asn Val Ala Val Lys Ile Ile Asp Arg Lys Lys Thr  
 35 40 45  
 Pro Thr Asp Phe Val Glu Arg Phe Leu Pro Arg Glu Met Asp Ile Leu  
 50 55 60  
 Ala Thr Val Asn His Gly Ser Ile Ile Lys Thr Tyr Glu Ile Phe Glu  
 65 70 75 80  
 Thr Ser Asp Gly Arg Ile Tyr Ile Ile Met Glu Leu Gly Val Gln Gly  
 85 90 95  
 Asp Leu Leu Glu Phe Ile Lys Cys Gln Gly Ala Leu His Glu Asp Val  
 100 105 110  
 Ala Arg Lys Met Phe Arg Gln Leu Ser Ser Ala Val Lys Tyr Cys His  
 115 120 125  
 Asp Leu Asp Ile Val His Arg Asp Leu Lys Cys Glu Asn Leu Leu Leu  
 130 135 140  
 Asp Lys Asp Phe Asn Ile Lys Leu Ser Asp Phe Gly Phe Ser Lys Arg  
 145 150 155 160

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Cys Leu Arg Asp Ser Asn Gly Arg Ile Ile Leu Ser Lys Thr Phe Cys
      165                      170                      175
Gly Ser Ala Ala Tyr Ala Ala Pro Glu Val Leu Gln Ser Ile Pro Tyr
      180                      185                      190
Gln Pro Lys Val Tyr Asp Ile Trp Ser Leu Gly Val Ile Leu Tyr Ile
      195                      200                      205
Met Val Cys Gly Ser Met Pro Tyr Asp Asp Ser Asp Ile Arg Lys Met
      210                      215                      220
Leu Arg Ile Gln Lys Glu His Arg Val Asp Phe Pro Arg Ser Lys Asn
      225                      230                      235                      240
Leu Thr Cys Glu Cys Lys Asp Leu Ile Tyr Arg Met Leu Gln Pro Asp
      245                      250                      255
Val Ser Gln Arg Leu His Ile Asp Glu Ile Leu Ser His Ser Trp Leu
      260                      265                      270
Gln Pro Pro Lys Pro Lys Ala Thr Ser Ser Ala Ser Phe Lys Arg Glu
      275                      280                      285
Gly Glu Gly Lys Tyr Arg Ala Glu Cys Lys Leu Asp Thr Lys Thr Gly
      290                      295                      300
Leu Arg Pro Asp His Arg Pro Asp His Lys Leu Gly Ala Lys Thr Gln
      305                      310                      315                      320
His Arg Leu Leu Val Val Pro Glu Asn Glu Asn Arg Met Glu Asp Arg
      325                      330                      335
Leu Ala Glu Thr Ser Arg Ala Lys Asp His His Ile Ser Gly Ala Glu
      340                      345                      350
Val Gly Lys Ala Ser Thr *
      355                      358

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<210> 1503
<211> 69
<212> PRT
<213> Homo sapiens

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<400> 1503
Met Val Thr Trp Lys Ala Asp Gly Thr Leu Ile Thr Gln Ser Val Glu
  1      5      10      15
Lys Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Val Ala Ser Ser
      20      25      30
Tyr Leu Ser Leu Thr Pro Glu Gln Trp Arg Ser Arg Arg Ser Tyr Ser
      35      40      45
Cys Gln Val Met Gln Glu Gly Ser Thr Val Glu Lys Ser Val Ala Pro
      50      55      60
Ala Glu Cys Ser *
      65      68

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<210> 1504
<211> 444
<212> PRT
<213> Homo sapiens

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<400> 1504
Met His Pro Ala Ala Glu Asp Asn Tyr Gly Tyr Asp Ala Cys Ala Val
  1      5      10      15
Leu Cys Leu Pro Cys Val Pro Asn Ile Leu Val Ile Ala Thr Glu Ser
      20      25      30
Gly Met Leu Tyr His Cys Val Val Leu Glu Gly Glu Glu Asp Asp
      35      40      45
His Thr Ser Glu Lys Ser Trp Asp Ser Arg Ile Asp Leu Ile Pro Ser
      50      55      60

```

Leu Tyr Val Phe Glu Cys Val Glu Leu Glu Leu Ala Leu Lys Leu Ala  
 65 70 75 80  
 Ser Gly Glu Asp Asp Pro Phe Asp Ser Asp Phe Ser Cys Pro Val Lys  
 85 90 95  
 Leu His Arg Asp Pro Lys Cys Pro Ser Arg Tyr His Cys Thr His Glu  
 100 105 110  
 Ala Gly Val His Ser Val Gly Leu Thr Trp Ile His Lys Leu His Lys  
 115 120 125  
 Phe Leu Gly Ser Asp Glu Glu Asp Lys Asp Ser Leu Gln Glu Leu Ser  
 130 135 140  
 Thr Glu Gln Lys Cys Phe Val Glu His Ile Leu Cys Thr Arg Pro Leu  
 145 150 155 160  
 Pro Cys Arg Gln Pro Ala Pro Ile Arg Gly Phe Trp Ile Val Pro Asp  
 165 170 175  
 Ile Leu Gly Pro Thr Met Ile Cys Ile Thr Ser Thr Tyr Glu Cys Leu  
 180 185 190  
 Ile Trp Pro Leu Leu Ser Thr Val His Pro Ala Ser Pro Pro Leu Leu  
 195 200 205  
 Cys Thr Arg Glu Asp Val Glu Val Ala Glu Ser Pro Leu Arg Val Leu  
 210 215 220  
 Ala Glu Thr Pro Asp Ser Phe Glu Lys His Ile Arg Ser Ile Leu Gln  
 225 230 235 240  
 Arg Ser Val Ala Asn Pro Ala Phe Leu Lys Ala Ser Glu Lys Asp Ile  
 245 250 255  
 Ala Pro Pro Pro Glu Glu Cys Leu Gln Leu Leu Ser Arg Ala Thr Gln  
 260 265 270  
 Val Phe Arg Glu Gln Tyr Ile Leu Lys Gln Asp Leu Ala Lys Glu Glu  
 275 280 285  
 Ile Gln Arg Arg Val Lys Leu Leu Cys Asp Gln Lys Lys Lys Gln Leu  
 290 295 300  
 Glu Asp Leu Ser Tyr Cys Arg Glu Glu Arg Lys Ser Leu Arg Glu Met  
 305 310 315 320  
 Ala Glu Arg Leu Ala Asp Lys Tyr Glu Glu Ala Lys Glu Lys Gln Glu  
 325 330 335  
 Asp Ile Met Asn Arg Met Lys Lys Leu Leu His Ser Phe His Ser Glu  
 340 345 350  
 Leu Pro Val Leu Ser Asp Ser Glu Arg Asp Met Lys Lys Glu Leu Gln  
 355 360 365  
 Leu Ile Pro Asp Gln Leu Arg His Leu Gly Asn Ala Ile Lys Gln Val  
 370 375 380  
 Thr Met Lys Lys Asp Tyr Gln Gln Gln Lys Met Glu Lys Val Leu Ser  
 385 390 395 400  
 Leu Pro Lys Pro Thr Ile Ile Leu Ser Ala Tyr Gln Arg Lys Cys Ile  
 405 410 415  
 Gln Ser Ile Leu Lys Glu Glu Gly Glu His Ile Arg Glu Met Val Lys  
 420 425 430  
 Gln Ile Asn Asp Ile Arg Asn His Val Asn Phe \*  
 435 440 443

<210> 1505  
 <211> 304  
 <212> PRT  
 <213> Homo sapiens

<400> 1505  
 Met Ala Ala Ala Glu Gly Pro Val Gly Asp Gly Glu Leu Trp Gln Thr  
 1 5 10 15  
 Trp Leu Pro Asn His Val Val Phe Leu Arg Leu Arg Glu Gly Leu Lys  
 20 25 30  
 Asn Gln Ser Pro Thr Glu Ala Glu Lys Pro Ala Ser Ser Ser Leu Pro  
 35 40 45

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Ser Ser Pro Pro Pro Gln Leu Leu Thr Arg Asn Val Val Phe Gly Leu
  50          55          60
Gly Gly Glu Leu Phe Leu Trp Asp Gly Glu Asp Ser Ser Phe Leu Val
  65          70          75          80
Val Arg Leu Arg Gly Pro Ser Gly Gly Gly Glu Glu Pro Ala Leu Ser
          85          90          95
Gln Tyr Gln Arg Leu Leu Cys Ile Asn Pro Pro Leu Phe Glu Ile Tyr
          100          105          110
Gln Val Leu Leu Ser Pro Thr Gln His His Val Ala Leu Ile Gly Ile
          115          120          125
Lys Gly Leu Met Val Leu Glu Leu Pro Lys Arg Trp Gly Lys Asn Ser
  130          135          140
Glu Phe Glu Gly Gly Lys Ser Thr Val Asn Cys Ser Thr Thr Pro Val
  145          150          155          160
Ala Glu Arg Phe Phe Thr Ser Ser Thr Ser Leu Thr Leu Lys His Ala
          165          170          175
Ala Trp Tyr Pro Ser Glu Ile Leu Asp Pro His Val Val Leu Leu Thr
          180          185          190
Ser Asp Asn Val Ile Arg Ile Tyr Ser Leu Arg Glu Pro Gln Thr Pro
  195          200          205
Thr Asn Val Ile Ile Leu Ser Glu Ala Glu Glu Glu Ser Leu Val Leu
  210          215          220
Asn Lys Gly Arg Ala Tyr Thr Ala Ser Leu Gly Glu Thr Ala Val Ala
  225          230          235          240
Phe Asp Phe Gly Pro Leu Ala Ala Val Pro Lys Thr Leu Phe Gly Gln
          245          250          255
Asn Gly Lys Asp Glu Val Val Ala Tyr Pro Leu Tyr Ile Leu Tyr Glu
  260          265          270
Asn Gly Glu Thr Phe Leu Thr Tyr Ile Ser Leu Leu His Ser Pro Gly
  275          280          285
Asn Ile Trp Lys Ala Val Gly Ser Ile Ala His Ala Ser Cys Gly *
  290          295          300          303

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&lt;210&gt; 1506

&lt;211&gt; 579

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1506

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Met Leu Arg Arg Leu Asp Lys Ile Arg Phe Arg Gly His Lys Arg Asp
  1          5          10          15
Asp Phe Leu Asp Leu Ala Glu Ser Pro Asn Ala Ser Asp Thr Glu Cys
          20          25          30
Ser Asp Glu Ile Pro Leu Lys Val Pro Arg Thr Ser Pro Arg Asp Ser
          35          40          45
Glu Glu Leu Arg Asp Pro Ala Gly Pro Gly Thr Leu Ile Met Ala Thr
          50          55          60
Gly Val Gln Asp Phe Asn Arg Thr Glu Phe Asp Arg Leu Asn Glu Ile
  65          70          75          80
Lys Gly His Leu Glu Ile Ala Leu Leu Glu Lys His Phe Leu Gln Glu
          85          90          95
Glu Leu Arg Lys Leu Arg Glu Glu Thr Asn Ala Glu Met Leu Arg Gln
          100          105          110
Glu Leu Asp Arg Glu Arg Gln Arg Arg Met Glu Leu Glu Gln Lys Val
          115          120          125
Gln Glu Val Leu Lys Ala Arg Thr Glu Glu Gln Met Ala Gln Gln Pro
  130          135          140
Pro Lys Gly Gln Ala Gln Ala Ser Asn Gly Ala Glu Arg Arg Ser Gln
  145          150          155          160
Gly Leu Ser Ser Arg Leu Gln Lys Trp Phe Tyr Glu Arg Phe Gly Glu
          165          170          175

```

Tyr Val Glu Asp Phe Arg Phe Gln Pro Glu Glu Asn Thr Val Glu Thr  
 180 185 190  
 Glu Glu Pro Leu Ser Ala Arg Arg Leu Thr Glu Asn Met Arg Arg Leu  
 195 200 205  
 Lys Arg Gly Ala Lys Pro Val Thr Asn Phe Val Lys Asn Leu Ser Ala  
 210 215 220  
 Leu Ser Asp Trp Tyr Ser Val Tyr Thr Ser Ala Ile Ala Phe Thr Val  
 225 230 235 240  
 Tyr Met Asn Ala Val Trp His Gly Trp Ala Ile Pro Leu Phe Leu Phe  
 245 250 255  
 Leu Ala Ile Leu Arg Leu Ser Leu Asn Tyr Leu Ile Ala Arg Gly Trp  
 260 265 270  
 Arg Ile Gln Trp Ser Ile Val Pro Glu Val Ser Glu Pro Val Glu Pro  
 275 280 285  
 Pro Lys Glu Asp Leu Thr Val Ser Glu Lys Phe Gln Leu Val Leu Asp  
 290 295 300  
 Val Ala Gln Lys Ala Gln Asn Leu Phe Gly Lys Met Ala Asp Ile Leu  
 305 310 315 320  
 Glu Lys Ile Lys Asn Leu Phe Met Trp Val Gln Pro Glu Ile Thr Gln  
 325 330 335  
 Lys Leu Tyr Val Ala Leu Trp Ala Ala Phe Leu Ala Ser Cys Phe Phe  
 340 345 350  
 Pro Tyr Arg Leu Val Gly Leu Ala Val Gly Leu Tyr Ala Gly Ile Lys  
 355 360 365  
 Phe Phe Leu Ile Asp Phe Ile Phe Lys Arg Cys Pro Arg Leu Arg Ala  
 370 375 380  
 Lys Tyr Asp Thr Pro Tyr Ile Ile Trp Arg Ser Leu Pro Thr Asp Pro  
 385 390 395 400  
 Gln Leu Lys Glu Arg Ser Ser Ala Ala Val Ser Arg Arg Leu Gln Thr  
 405 410 415  
 Thr Ser Ser Arg Ser Tyr Val Pro Ser Ala Pro Ala Gly Leu Gly Lys  
 420 425 430  
 Glu Glu Asp Ala Gly Arg Phe His Ser Thr Lys Lys Gly Asn Phe His  
 435 440 445  
 Glu Ile Phe Asn Leu Thr Glu Asn Glu Arg Pro Leu Ala Val Cys Glu  
 450 455 460  
 Asn Gly Trp Arg Cys Cys Leu Ile Asn Arg Asp Arg Lys Met Pro Thr  
 465 470 475 480  
 Asp Tyr Ile Arg Asn Gly Val Leu Tyr Val Thr Glu Asn Tyr Leu Cys  
 485 490 495  
 Phe Glu Ser Ser Lys Ser Gly Ser Ser Lys Arg Asn Lys Val Ile Lys  
 500 505 510  
 Leu Val Asp Ile Thr Asp Ile Gln Lys Tyr Lys Val Leu Ser Val Leu  
 515 520 525  
 Pro Gly Ser Gly Met Gly Ile Ala Val Ser Thr Pro Ser Thr Gln Lys  
 530 535 540  
 Pro Leu Val Phe Gly Ala Met Val His Arg Asp Glu Ala Phe Glu Thr  
 545 550 555 560  
 Ile Leu Ser Gln Tyr Ile Lys Ile Thr Ser Ala Ala Ala Ser Gly Gly  
 565 570 575  
 Asp Ser \*  
 578

<210> 1507  
 <211> 340  
 <212> PRT  
 <213> Homo sapiens

<400> 1507  
 Met Glu Ser Arg Lys Asp Ile Thr Asn Gln Glu Glu Leu Trp Lys Met  
 1 5 10 15

Lys Pro Arg Arg Asn Leu Glu Glu Asp Asp Tyr Leu His Lys Asp Thr  
                   20                                  25                                  30  
 Gly Glu Thr Ser Met Leu Lys Arg Pro Val Leu Leu His Leu His Gln  
                   35                                  40                                  45  
 Thr Ala His Ala Asp Glu Phe Asp Cys Pro Ser Glu Leu Gln His Thr  
                   50                                  55                                  60  
 Gln Glu Leu Phe Pro Gln Trp His Leu Pro Ile Lys Ile Ala Ala Ile  
                   65                                  70                                  75                                  80  
 Ile Ala Ser Leu Thr Phe Leu Tyr Thr Leu Leu Arg Glu Val Ile His  
                                   85                                  90                                  95  
 Pro Leu Ala Thr Ser His Gln Gln Tyr Phe Tyr Lys Ile Pro Ile Leu  
                                   100                                  105                                  110  
 Val Ile Asn Lys Val Leu Pro Met Val Ser Ile Thr Leu Leu Ala Leu  
                                   115                                  120                                  125  
 Val Tyr Leu Pro Gly Val Ile Ala Ala Ile Val Gln Leu His Asn Gly  
                                   130                                  135                                  140  
 Thr Lys Tyr Lys Lys Phe Pro His Trp Leu Asp Lys Trp Met Leu Thr  
                                   145                                  150                                  155                                  160  
 Arg Lys Gln Phe Gly Leu Leu Ser Phe Phe Phe Ala Val Leu His Ala  
                                   165                                  170                                  175  
 Ile Tyr Ser Leu Ser Tyr Pro Met Arg Arg Ser Tyr Arg Tyr Lys Leu  
                                   180                                  185                                  190  
 Leu Asn Trp Ala Tyr Gln Gln Val Gln Gln Asn Lys Glu Asp Ala Trp  
                                   195                                  200                                  205  
 Ile Glu His Asp Val Trp Arg Met Glu Ile Tyr Val Ser Leu Gly Ile  
                                   210                                  215                                  220  
 Val Gly Leu Ala Ile Leu Ala Leu Leu Ala Val Thr Ser Ile Pro Ser  
                                   225                                  230                                  235                                  240  
 Val Ser Asp Ser Leu Thr Trp Arg Glu Phe His Tyr Ile Gln Ser Lys  
                                   245                                  250                                  255  
 Leu Gly Ile Val Ser Leu Leu Leu Gly Thr Ile His Ala Leu Ile Phe  
                                   260                                  265                                  270  
 Ala Trp Asn Lys Trp Ile Asp Ile Lys Gln Phe Val Trp Tyr Thr Pro  
                                   275                                  280                                  285  
 Pro Thr Phe Met Ile Ala Val Phe Leu Pro Ile Val Val Leu Ile Phe  
                                   290                                  295                                  300  
 Lys Ser Ile Leu Phe Leu Pro Cys Leu Arg Lys Lys Ile Leu Lys Ile  
                                   305                                  310                                  315                                  320  
 Arg His Gly Trp Glu Asp Val Thr Lys Ile Asn Lys Thr Glu Ile Cys  
                                   325                                  330                                  335  
 Ser Gln Leu \*  
                   339

&lt;210&gt; 1508

&lt;211&gt; 950

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1508

Met Phe Leu His Pro Val Asp Tyr Gly Arg Lys Ala Glu Glu Leu Leu  
   1                  5                                  10                                  15  
 Trp Arg Lys Val Tyr Tyr Glu Val Ile Gln Leu Ile Lys Thr Asn Lys  
                   20                                  25                                  30  
 Lys His Ile His Ser Arg Ser Thr Leu Glu Cys Ala Tyr Arg Thr His  
                   35                                  40                                  45  
 Leu Val Ala Gly Ile Gly Phe Tyr Gln His Leu Leu Tyr Ile Gln  
                   50                                  55                                  60  
 Ser His Tyr Gln Leu Glu Gln Cys Cys Ile Asp Trp Thr His Val  
                   65                                  70                                  75                                  80  
 Thr Asp Pro Leu Ile Gly Cys Lys Lys Pro Val Ser Ala Ser Gly Lys  
                                   85                                  90                                  95



Glu Met Asp Trp Ala Gln Met Ala Cys His Arg Cys Leu Val Tyr Leu  
 100 105 110  
 Gly Asp Leu Ser Arg Tyr Gln Asn Glu Leu Ala Gly Val Asp Thr Glu  
 115 120 125  
 Leu Leu Ala Glu Arg Phe Tyr Tyr Gln Ala Leu Ser Val Ala Pro Gln  
 130 135 140  
 Ile Gly Met Pro Phe Asn Gln Leu Gly Thr Leu Ala Gly Ser Lys Tyr  
 145 150 155 160  
 Tyr Asn Val Glu Ala Met Tyr Cys Tyr Leu Arg Cys Ile Gln Ser Glu  
 165 170 175  
 Val Ser Phe Glu Gly Ala Tyr Gly Asn Leu Lys Arg Leu Tyr Asp Lys  
 180 185 190  
 Ala Ala Lys Met Tyr His Gln Leu Lys Lys Cys Glu Thr Arg Lys Leu  
 195 200 205  
 Ser Pro Gly Lys Lys Arg Cys Lys Asp Ile Lys Arg Leu Leu Val Asn  
 210 215 220  
 Phe Met Tyr Leu Gln Ser Leu Leu Gln Pro Lys Ser Ser Ser Val Asp  
 225 230 235 240  
 Ser Glu Leu Thr Ser Leu Cys Gln Ser Val Leu Glu Asp Phe Asn Leu  
 245 250 255  
 Cys Leu Phe Tyr Leu Pro Ser Ser Pro Asn Leu Ser Leu Ala Ser Glu  
 260 265 270  
 Asp Glu Glu Glu Tyr Glu Ser Gly Tyr Ala Phe Leu Pro Asp Leu Leu  
 275 280 285  
 Ile Phe Gln Met Val Ile Ile Cys Leu Met Cys Val His Ser Leu Glu  
 290 295 300  
 Arg Ala Gly Ser Lys Gln Tyr Ser Ala Ala Ile Ala Phe Thr Leu Ala  
 305 310 315 320  
 Leu Phe Ser His Leu Val Asn His Val Asn Ile Arg Leu Gln Ala Glu  
 325 330 335  
 Leu Glu Glu Gly Glu Asn Pro Val Pro Ala Phe Gln Ser Asp Gly Thr  
 340 345 350  
 Asp Glu Pro Glu Ser Lys Glu Pro Val Glu Lys Glu Glu Glu Pro Asp  
 355 360 365  
 Pro Glu Pro Pro Pro Val Thr Pro Gln Val Gly Glu Gly Arg Lys Ser  
 370 375 380  
 Arg Lys Phe Ser Arg Leu Ser Cys Leu Arg Arg Arg Arg His Pro Pro  
 385 390 395 400  
 Lys Val Gly Asp Asp Ser Asp Leu Ser Glu Gly Phe Glu Ser Asp Ser  
 405 410 415  
 Ser His Asp Ser Ala Arg Ala Ser Glu Gly Ser Asp Ser Gly Ser Asp  
 420 425 430  
 Lys Ser Leu Glu Gly Gly Gly Thr Ala Phe Asp Ala Glu Thr Asp Ser  
 435 440 445  
 Glu Met Asn Ser Gln Glu Ser Arg Ser Asp Leu Glu Asp Met Glu Glu  
 450 455 460  
 Glu Glu Gly Thr Arg Ser Pro Thr Leu Glu Pro Pro Arg Gly Arg Ser  
 465 470 475 480  
 Glu Ala Pro Asp Ser Leu Asn Gly Pro Leu Gly Pro Ser Glu Ala Ser  
 485 490 495  
 Ile Ala Ser Asn Leu Gln Ala Met Ser Thr Gln Met Phe Gln Thr Lys  
 500 505 510  
 Arg Cys Phe Arg Leu Ala Pro Thr Phe Ser Asn Leu Leu Leu Gln Pro  
 515 520 525  
 Thr Thr Asn Pro His Thr Ser Ala Ser His Arg Pro Cys Val Asn Gly  
 530 535 540  
 Asp Val Asp Lys Pro Ser Glu Pro Ala Ser Glu Glu Gly Ser Glu Ser  
 545 550 555 560  
 Glu Gly Ser Glu Ser Ser Gly Arg Ser Cys Arg Asn Glu Arg Ser Ile  
 565 570 575  
 Gln Glu Lys Leu Gln Val Leu Met Ala Glu Gly Leu Leu Pro Ala Val  
 580 585 590  
 Lys Val Phe Leu Asp Trp Leu Arg Thr Asn Pro Asp Leu Ile Ile Val  
 595 600 605

Cys Ala Gln Ser Ser Gln Ser Leu Trp Asn Arg Leu Ser Val Leu Leu  
 610 615 620  
 Asn Leu Leu Pro Ala Ala Gly Glu Leu Gln Glu Ser Gly Leu Ala Leu  
 625 630 635 640  
 Cys Pro Glu Val Gln Asp Leu Leu Glu Gly Cys Glu Leu Pro Asp Leu  
 645 650 655  
 Pro Ser Ser Leu Leu Leu Pro Glu Asp Met Ala Leu Arg Asn Leu Pro  
 660 665 670  
 Pro Leu Arg Ala Ala His Arg Arg Phe Asn Phe Asp Thr Asp Arg Pro  
 675 680 685  
 Leu Leu Ser Thr Leu Glu Glu Ser Val Val Arg Ile Cys Cys Ile Arg  
 690 695 700  
 Ser Phe Gly His Phe Ile Ala Arg Leu Gln Gly Ser Ile Leu Gln Phe  
 705 710 715 720  
 Asn Pro Glu Val Gly Ile Phe Val Ser Ile Ala Gln Ser Glu Gln Glu  
 725 730 735  
 Ser Leu Leu Gln Gln Ala Gln Ala Gln Phe Arg Met Ala Gln Glu Glu  
 740 745 750  
 Ala Arg Arg Asn Arg Leu Met Arg Asp Met Ala Gln Leu Arg Leu Gln  
 755 760 765  
 Leu Glu Val Ser Gln Leu Glu Gly Ser Leu Gln Gln Pro Lys Ala Gln  
 770 775 780  
 Ser Ala Met Ser Pro Tyr Leu Val Pro Asp Thr Gln Ala Leu Cys His  
 785 790 795 800  
 His Leu Pro Val Ile Arg Gln Leu Ala Thr Ser Gly Arg Phe Ile Val  
 805 810 815  
 Ile Ile Pro Arg Thr Val Ile Asp Gly Leu Asp Leu Leu Lys Lys Glu  
 820 825 830  
 His Pro Gly Ala Arg Asp Gly Ile Arg Tyr Leu Glu Ala Glu Phe Lys  
 835 840 845  
 Lys Gly Asn Arg Tyr Ile Arg Cys Gln Lys Glu Val Gly Lys Ser Phe  
 850 855 860  
 Glu Arg His Lys Leu Lys Arg Gln Asp Ala Asp Ala Trp Thr Leu Tyr  
 865 870 875 880  
 Lys Ile Leu Asp Ser Cys Lys Gln Leu Thr Leu Ala Gln Gly Ala Gly  
 885 890 895  
 Glu Glu Asp Pro Ser Gly Met Val Thr Ile Ile Thr Gly Leu Pro Leu  
 900 905 910  
 Asp Asn Pro Ser Val Leu Ser Gly Pro Met Gln Ala Ala Leu Gln Ala  
 915 920 925  
 Ala Ala His Ala Ser Val Asp Ile Lys Asn Val Leu Asp Phe Tyr Lys  
 930 935 940  
 Gln Trp Lys Glu Ile Gly  
 945 950

&lt;210&gt; 1509

&lt;211&gt; 1358

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1509

Met Val Phe Gly Thr Lys Phe Pro Glu Ser Lys Ile Val Leu Ala Leu  
 1 5 10 15  
 Arg Thr Lys Arg Glu Gly Pro Gly Glu Val Arg Ile Gln Val Tyr Ala  
 20 25 30  
 Leu Arg Ile Gly Glu Asn Glu Asn Thr Asp Arg Glu Arg Asp Pro Thr  
 35 40 45  
 Pro Thr Pro Cys Pro Gln Gly His Arg Met Met Thr Glu Pro Arg Glu  
 50 55 60  
 Arg Arg Gly Tyr Ser Val Pro Pro Arg Pro Glu Val Arg Thr Gln Ala  
 65 70 75 80

Thr Glu Trp Arg Val Glu Glu Ser Asn Phe Asn Lys Ile Phe Leu Lys  
 85 90 95  
 Lys Asp Ala Glu Leu Gly Arg Ser Asn His Leu Pro Thr Trp Asp Lys  
 100 105 110  
 Pro Glu Asp Ala Ser Trp Leu Pro Gln Ser Cys Leu Gly Gly Asp Ala  
 115 120 125  
 Val Ala Thr Thr Gly Glu Ile His Glu Glu Lys Ala Trp Lys Thr Arg  
 130 135 140  
 Ala Leu Glu Val Gly Gln Pro Ala Gln Arg Asp Ile Arg Arg Gly Glu  
 145 150 155 160  
 Leu Trp Gly Lys Glu His Gly Ala Asp Gln Ala Ile Gln Glu Thr Leu  
 165 170 175  
 Glu Asp Leu Ser Ser Leu Glu Arg Thr Leu Val Val Ser Glu Ser Ser  
 180 185 190  
 Pro Leu Gly Gly Asp Cys Gln Glu Val Thr Thr Leu Thr Val Lys Tyr  
 195 200 205  
 Gln Val Ser Glu Glu Val Pro Ser Gly Thr Val Ile Gly Lys Leu Ser  
 210 215 220  
 Gln Glu Leu Gly Arg Glu Glu Arg Arg Arg Gln Ala Gly Ala Ala Phe  
 225 230 235 240  
 Gln Val Leu Gln Leu Pro Gln Ala Leu Pro Ile Gln Val Asp Ser Glu  
 245 250 255  
 Glu Gly Leu Leu Ser Thr Gly Arg Arg Leu Asp Arg Glu Gln Leu Cys  
 260 265 270  
 Arg Gln Trp Asp Pro Cys Leu Val Ser Phe Asp Val Leu Ala Thr Gly  
 275 280 285  
 Asp Leu Ala Leu Ile His Val Glu Ile Gln Val Leu Asp Ile Asn Asp  
 290 295 300  
 His Gln Pro Arg Phe Pro Lys Gly Glu Gln Glu Leu Glu Ile Ser Glu  
 305 310 315 320  
 Ser Ala Ser Leu Arg Thr Arg Ile Pro Leu Asp Arg Ala Leu Asp Pro  
 325 330 335  
 Asp Thr Gly Pro Asn Thr Leu His Thr Tyr Thr Leu Ser Pro Ser Glu  
 340 345 350  
 His Phe Ala Leu Asp Val Ile Val Gly Pro Asp Glu Thr Lys His Ala  
 355 360 365  
 Glu Leu Ile Val Val Lys Glu Leu Asp Arg Glu Ile His Ser Phe Phe  
 370 375 380  
 Asp Leu Val Leu Thr Ala Tyr Asp Asn Gly Asn Pro Pro Lys Ser Gly  
 385 390 395 400  
 Thr Ser Leu Val Lys Val Asn Val Leu Asp Ser Asn Asp Asn Ser Pro  
 405 410 415  
 Ala Phe Ala Glu Ser Ser Leu Ala Leu Glu Ile Gln Glu Asp Ala Ala  
 420 425 430  
 Pro Gly Thr Leu Leu Ile Lys Leu Thr Ala Thr Asp Pro Asp Gln Gly  
 435 440 445  
 Pro Asn Gly Glu Val Glu Phe Phe Leu Ser Lys His Met Pro Pro Glu  
 450 455 460  
 Val Leu Asp Thr Phe Ser Ile Asp Ala Lys Thr Gly Gln Val Ile Leu  
 465 470 475 480  
 Arg Arg Pro Leu Asp Tyr Glu Lys Asn Pro Ala Tyr Glu Val Asp Val  
 485 490 495  
 Gln Ala Arg Asp Leu Gly Pro Asn Pro Ile Pro Ala His Cys Lys Val  
 500 505 510  
 Leu Ile Lys Val Leu Asp Val Asn Asp Asn Ile Pro Ser Ile His Val  
 515 520 525  
 Thr Trp Ala Ser Gln Pro Ser Leu Val Ser Glu Ala Leu Pro Lys Asp  
 530 535 540  
 Ser Phe Ile Ala Leu Val Met Ala Asp Asp Leu Asp Ser Gly His Asn  
 545 550 555 560  
 Gly Leu Val His Cys Trp Leu Ser Gln Glu Leu Gly His Phe Arg Leu  
 565 570 575  
 Lys Arg Thr Asn Gly Asn Thr Tyr Met Leu Leu Thr Asn Ala Thr Leu  
 580 585 590

Asp Arg Glu Gln Trp Pro Lys Tyr Thr Leu Thr Leu Leu Ala Gln Asp  
 595 600 605  
 Gln Gly Leu Gln Pro Leu Ser Ala Lys Lys Gln Leu Ser Ile Gln Ile  
 610 615 620  
 Ser Asp Ile Asn Asp Asn Ala Pro Val Phe Glu Lys Ser Arg Tyr Glu  
 625 630 635 640  
 Val Ser Thr Arg Glu Asn Asn Leu Pro Ser Leu His Leu Ile Thr Ile  
 645 650 655  
 Lys Ala His Asp Ala Asp Leu Gly Ile Asn Gly Lys Val Ser Tyr Arg  
 660 665 670  
 Ile Gln Asp Ser Pro Val Ala His Leu Val Ala Ile Asp Ser Asn Thr  
 675 680 685  
 Gly Glu Val Thr Ala Gln Arg Ser Leu Asn Tyr Glu Glu Met Ala Gly  
 690 695 700  
 Phe Glu Phe Gln Val Ile Ala Glu Asp Ser Gly Gln Pro Met Leu Ala  
 705 710 715 720  
 Ser Ser Val Ser Val Trp Val Ser Leu Leu Asp Ala Asn Asp Asn Ala  
 725 730 735  
 Pro Glu Val Val Gln Pro Val Leu Ser Asp Gly Lys Ala Ser Leu Ser  
 740 745 750  
 Val Leu Val Asn Ala Ser Thr Gly His Leu Leu Val Pro Ile Glu Thr  
 755 760 765  
 Pro Asn Gly Leu Gly Pro Ala Gly Thr Asp Thr Pro Pro Leu Ala Thr  
 770 775 780  
 His Ser Ser Arg Pro Phe Leu Leu Thr Thr Ile Val Ala Arg Asp Ala  
 785 790 795 800  
 Asp Ser Gly Ala Asn Gly Glu Pro Leu Tyr Ser Ile Arg Ser Gly Asn  
 805 810 815  
 Glu Ala His Leu Phe Ile Leu Asn Pro His Thr Gly Gln Leu Phe Val  
 820 825 830  
 Asn Val Thr Asn Ala Ser Ser Leu Ile Gly Ser Glu Trp Glu Leu Glu  
 835 840 845  
 Ile Val Val Glu Asp Gln Gly Ser Pro Pro Leu Gln Thr Arg Ala Leu  
 850 855 860  
 Leu Arg Val Met Phe Val Thr Ser Val Asp His Leu Arg Asp Ser Ala  
 865 870 875 880  
 Arg Lys Pro Gly Ala Leu Ser Met Ser Met Leu Thr Val Ile Cys Leu  
 885 890 895  
 Ala Val Leu Leu Gly Ile Phe Gly Leu Ile Leu Ala Leu Phe Met Ser  
 900 905 910  
 Ile Cys Arg Thr Glu Lys Lys Asp Asn Arg Ala Tyr Asn Cys Arg Glu  
 915 920 925  
 Ala Glu Ser Thr Tyr Arg Gln Gln Pro Lys Arg Pro Gln Lys His Ile  
 930 935 940  
 Gln Lys Ala Asp Ile His Leu Val Pro Val Leu Arg Gly Gln Ala Gly  
 945 950 955 960  
 Glu Pro Cys Glu Val Gly Gln Ser His Lys Asp Val Asp Lys Glu Ala  
 965 970 975  
 Met Met Glu Ala Gly Trp Asp Pro Cys Leu Gln Ala Pro Phe His Leu  
 980 985 990  
 Thr Pro Thr Leu Tyr Arg Thr Leu Arg Asn Gln Gly Asn Gln Gly Ala  
 995 1000 1005  
 Pro Ala Glu Ser Arg Glu Val Leu Gln Asp Thr Val Asn Leu Leu Phe  
 1010 1015 1020  
 Asn His Pro Arg Gln Arg Asn Ala Ser Arg Glu Asn Leu Asn Leu Pro  
 1025 1030 1035 1040  
 Glu Pro Gln Pro Ala Thr Gly Gln Pro Arg Ser Arg Pro Leu Lys Val  
 1045 1050 1055  
 Ala Gly Ser Pro Thr Gly Arg Leu Ala Gly Asp Gln Gly Ser Glu Glu  
 1060 1065 1070  
 Ala Pro Gln Arg Pro Pro Ala Ser Ser Ala Thr Leu Arg Arg Gln Arg  
 1075 1080 1085  
 His Leu Asn Gly Lys Val Ser Pro Glu Lys Glu Ser Gly Pro Arg Gln  
 1090 1095 1100

```

Ile Leu Arg Ser Leu Val Arg Leu Ser Val Ala Ala Phe Ala Glu Arg
1105          1110          1115          1120
Asn Pro Val Glu Glu Leu Thr Val Asp Ser Pro Pro Val Gln Gln Ile
          1125          1130          1135
Ser Gln Leu Leu Ser Leu Leu His Gln Gly Gln Phe Gln Pro Lys Pro
          1140          1145          1150
Asn His Arg Gly Asn Lys Tyr Leu Ala Lys Pro Gly Gly Ser Arg Ser
          1155          1160          1165
Ala Ile Pro Asp Thr Asp Gly Pro Ser Ala Arg Ala Gly Gly Gln Thr
          1170          1175          1180
Asp Pro Glu Gln Glu Glu Gly Pro Leu Asp Pro Glu Glu Asp Leu Ser
1185          1190          1195          1200
Val Lys Gln Leu Leu Glu Glu Glu Leu Ser Ser Leu Leu Asp Pro Ser
          1205          1210          1215
Thr Gly Leu Ala Leu Asp Arg Leu Ser Ala Pro Asp Pro Ala Trp Met
          1220          1225          1230
Ala Arg Leu Ser Leu Pro Leu Thr Thr Asn Tyr Arg Asp Asn Val Ile
          1235          1240          1245
Ser Pro Asp Ala Ala Ala Thr Glu Glu Pro Arg Thr Phe Gln Thr Phe
          1250          1255          1260
Gly Lys Ala Glu Ala Pro Glu Leu Ser Pro Thr Gly Thr Arg Leu Ala
1265          1270          1275          1280
Ser Thr Phe Val Ser Glu Met Ser Ser Leu Leu Glu Met Leu Leu Glu
          1285          1290          1295
Gln Arg Ser Ser Met Pro Val Glu Ala Ala Ser Glu Ala Leu Arg Arg
          1300          1305          1310
Leu Ser Val Cys Gly Arg Thr Leu Ser Leu Asp Leu Ala Thr Ser Ala
          1315          1320          1325
Ala Ser Gly Met Lys Val Gln Gly Asp Pro Gly Gly Lys Thr Gly Thr
          1330          1335          1340
Glu Gly Lys Ser Arg Gly Ser Ser Ser Ser Ser Arg Cys Leu
1345          1350          1355          1358

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<210> 1510
<211> 342
<212> PRT
<213> Homo. sapiens

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<400> 1510
Met Glu Phe Ser Gly Arg Lys Arg Arg Lys Leu Arg Leu Ala Gly Asp
 1          5          10          15
Gln Arg Asn Ala Ser Tyr Pro His Cys Leu Gln Phe Tyr Leu Gln Pro
          20          25          30
Pro Ser Glu Asn Ile Ser Leu Thr Glu Phe Glu Asn Leu Ala Ile Asp
          35          40          45
Arg Val Lys Leu Leu Lys Ser Val Glu Asn Leu Gly Val Ser Tyr Val
          50          55          60
Lys Gly Thr Glu Gln Tyr Gln Ser Lys Leu Glu Ser Glu Leu Arg Lys
          65          70          75          80
Leu Lys Phe Ser Tyr Arg Glu Lys Leu Glu Asp Glu Tyr Glu Pro Arg
          85          90          95
Arg Arg Asp His Ile Ser His Phe Ile Leu Arg Leu Ala Tyr Cys Gln
          100          105          110
Ser Glu Glu Leu Arg Arg Trp Phe Ile Gln Gln Glu Met Asp Leu Leu
          115          120          125
Arg Phe Arg Phe Ser Ile Leu Pro Lys Asp Lys Ile Gln Asp Phe Leu
          130          135          140
Lys Asp Ser Gln Leu Gln Phe Glu Ala Ile Ser Asp Glu Glu Lys Thr
          145          150          155          160
Leu Arg Glu Gln Glu Ile Val Ala Ser Ser Pro Ser Leu Ser Gly Leu
          165          170          175

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Lys Leu Gly Phe Glu Ser Ile Tyr Lys Ile Pro Phe Ala Asp Ala Leu  
                   180                  185                  190  
 Asp Leu Phe Arg Gly Arg Lys Val Tyr Leu Glu Asp Gly Phe Ala Tyr  
                   195                  200                  205  
 Val Pro Leu Lys Asp Ile Val Ala Ile Ile Leu Asn Glu Phe Arg Ala  
                   210                  215                  220  
 Lys Leu Ser Lys Ala Leu Ala Leu Thr Ala Arg Ser Leu Pro Ala Val  
 225                  230                  235                  240  
 Gln Ser Asp Glu Arg Leu Gln Pro Leu Leu Asn His Leu Ser His Ser  
                   245                  250                  255  
 Tyr Thr Gly Gln Asp Tyr Ser Thr Gln Gly Asn Val Gly Lys Ile Ser  
                   260                  265                  270  
 Leu Asp Gln Ile Asp Leu Leu Ser Thr Lys Ser Phe Pro Pro Cys Met  
                   275                  280                  285  
 Arg Gln Leu His Lys Ala Leu Arg Glu Asn His His Leu Arg His Gly  
                   290                  295                  300  
 Gly Arg Met Gln Tyr Gly Leu Phe Leu Lys Gly Ile Gly Leu Thr Leu  
 305                  310                  315                  320  
 Glu Gln Ala Leu Gln Phe Trp Lys Gln Glu Phe Ile Lys Gly Lys Met  
                   325                  330                  335  
 Gly Ser Arg Gln Val \*  
                   340 341

<210> 1511  
 <211> 80  
 <212> PRT  
 <213> Homo sapiens

<400> 1511  
 Met Ala Ala Thr Glu Pro Ile Leu Ala Ala Thr Gly Ser Pro Ala Ala  
   1                  5                  10                  15  
 Val His Arg Arg Asn Trp Lys Glu Pro Val Arg Ala Gln Pro Leu Ser  
                   20                  25                  30  
 Val Thr Val Trp Ala Pro Arg Cys Gln Arg Pro His Arg Leu Pro Leu  
                   35                  40                  45  
 Ser Leu Pro Val Pro Thr Pro Arg Ser Leu Lys Pro Ser Leu Arg Pro  
                   50                  55                  60  
 Glu Leu Arg Pro Pro Arg Pro Trp Ser Cys Leu Ser Gly Pro His Pro  
   65                  70                  75                  80

<210> 1512  
 <211> 672  
 <212> PRT  
 <213> Homo sapiens

<400> 1512  
 Met Ala Val Gly Leu Cys Lys Ala Met Ser Gln Gly Leu Val Thr Phe  
   1                  5                  10                  15  
 Arg Asp Val Ala Leu Asp Phe Ser Gln Glu Glu Trp Glu Trp Leu Lys  
                   20                  25                  30  
 Pro Ser Gln Lys Asp Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Arg  
                   35                  40                  45  
 Asn Leu Val Trp Leu Gly Leu Ser Ile Ser Lys Pro Asn Met Ile Ser  
                   50                  55                  60  
 Leu Leu Glu Gln Gly Lys Glu Pro Trp Met Val Glu Arg Lys Met Ser  
   65                  70                  75                  80

Gln Gly His Cys Ala Asp Trp Glu Ser Trp Cys Glu Ile Glu Glu Leu  
 85 90 95  
 Ser Pro Lys Trp Phe Ile Asp Glu Asp Glu Ile Ser Gln Glu Met Val  
 100 105 110  
 Met Glu Arg Leu Ala Ser His Gly Leu Glu Cys Ser Ser Phe Arg Glu  
 115 120 125  
 Ala Trp Lys Tyr Lys Gly Glu Phe Glu Leu His Gln Gly Asn Ala Glu  
 130 135 140  
 Arg His Phe Met Gln Val Thr Ala Val Lys Glu Ile Ser Thr Gly Lys  
 145 150 155 160  
 Arg Asp Asn Glu Phe Ser Asn Ser Gly Arg Ser Ile Pro Leu Lys Ser  
 165 170 175  
 Val Phe Leu Thr Gln Gln Lys Val Pro Thr Ile Gln Gln Val His Lys  
 180 185 190  
 Phe Asp Ile Tyr Asp Lys Leu Phe Pro Gln Asn Ser Val Ile Ile Glu  
 195 200 205  
 Tyr Lys Arg Leu His Ala Glu Lys Glu Ser Leu Ile Gly Asn Glu Cys  
 210 215 220  
 Glu Glu Phe Asn Gln Ser Thr Tyr Leu Ser Lys Asp Ile Gly Ile Pro  
 225 230 235 240  
 Pro Gly Glu Lys Pro Tyr Glu Ser His Asp Phe Ser Lys Leu Leu Ser  
 245 250 255  
 Phe His Ser Leu Phe Thr Gln His Gln Thr Thr His Phe Gly Lys Leu  
 260 265 270  
 Pro His Gly Tyr Asp Glu Cys Gly Asp Ala Phe Ser Cys Tyr Ser Phe  
 275 280 285  
 Phe Thr Gln Pro Gln Arg Ile His Ser Gly Glu Lys Pro Tyr Ala Cys  
 290 295 300  
 Asn Asp Cys Gly Lys Ala Phe Ser His Asp Phe Phe Leu Ser Glu His  
 305 310 315 320  
 Gln Arg Thr His Ile Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Asn  
 325 330 335  
 Lys Ala Phe Arg Gln Ser Ala His Leu Ala Gln His Gln Arg Ile His  
 340 345 350  
 Thr Gly Glu Lys Pro Phe Ala Cys Asn Glu Cys Gly Lys Ala Phe Ser  
 355 360 365  
 Arg Tyr Ala Phe Leu Val Glu His Gln Arg Ile His Thr Gly Glu Lys  
 370 375 380  
 Pro Tyr Glu Cys Lys Glu Cys Asn Lys Ala Phe Arg Gln Ser Ala His  
 385 390 395 400  
 Leu Asn Gln His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys  
 405 410 415  
 Asn Gln Cys Gly Lys Ala Phe Ser Arg Arg Ile Ala Leu Thr Leu His  
 420 425 430  
 Gln Arg Ile His Thr Gly Glu Lys Pro Phe Lys Cys Ser Glu Cys Gly  
 435 440 445  
 Lys Thr Phe Gly Tyr Arg Ser His Leu Asn Gln His Gln Arg Ile His  
 450 455 460  
 Thr Gly Glu Lys Pro Tyr Glu Cys Ile Lys Cys Gly Lys Phe Phe Arg  
 465 470 475 480  
 Thr Asp Ser Gln Leu Asn Arg His His Arg Ile His Thr Gly Glu Arg  
 485 490 495  
 Pro Phe Glu Cys Ser Lys Cys Gly Lys Ala Phe Ser Asp Ala Leu Val  
 500 505 510  
 Leu Ile His His Lys Arg Ser His Ala Gly Glu Lys Pro Tyr Glu Cys  
 515 520 525  
 Asn Lys Cys Gly Lys Ala Phe Ser Cys Gly Ser Tyr Leu Asn Gln His  
 530 535 540  
 Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Ser Glu Cys Gly  
 545 550 555 560  
 Lys Ala Phe His Gln Ile Leu Ser Leu Arg Leu His Gln Arg Ile His  
 565 570 575  
 Ala Gly Glu Lys Pro Tyr Lys Cys Asn Glu Ser Gln Arg Val Arg Arg  
 580 585 590

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Ser Glu Leu Ala Val Ser Arg Gly Leu Thr Thr Lys Pro Ala Asp Thr
    595                600                605
Gly Pro Asp Ser Thr Leu Asn Ala Ala Lys Val Ala Glu Pro Ala Arg
    610                615                620
Ala Gly Thr Glu Ala Ala Leu Arg Pro Ala Leu Ser Val Ala Glu Ser
    625                630                635                640
Ala Thr Ser Leu Gly Pro Leu His Gln Gly Arg Arg Phe Pro Glu Ala
    645                650                655
Pro Ala Ala His Pro Gly Gly Thr Gly Phe Thr Val Cys Ala Ser *
    660                665                670 671

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<210> 1513
<211> 502
<212> PRT
<213> Homo sapiens

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<400> 1513
Met Thr Pro Gly Ala Leu Leu Met Leu Leu Gly Ala Leu Gly Pro Pro
  1                5                10                15
Leu Ala Pro Gly Val Arg Gly Ser Glu Ala Glu Gly Arg Leu Arg Glu
    20                25                30
Lys Leu Phe Ser Gly Tyr Asp Ser Ser Val Arg Pro Ala Arg Glu Val
    35                40                45
Gly Asp Arg Val Arg Val Ser Val Gly Leu Ile Leu Ala Gln Leu Ile
    50                55                60
Ser Leu Asn Glu Lys Asp Glu Glu Met Ser Thr Lys Val Tyr Leu Asp
    65                70                75                80
Leu Glu Trp Thr Asp Tyr Arg Leu Ser Trp Asp Pro Ala Glu His Asp
    85                90                95
Gly Ile Asp Ser Leu Arg Ile Thr Ala Glu Ser Val Trp Leu Pro Asp
    100               105               110
Val Val Leu Leu Asn Asn Asn Asp Gly Asn Phe Asp Val Ala Leu Asp
    115               120               125
Ile Ser Val Val Val Ser Ser Asp Gly Ser Val Arg Trp Gln Pro Pro
    130               135               140
Gly Ile Tyr Arg Ser Ser Cys Ser Ile Gln Val Thr Tyr Phe Pro Phe
    145               150               155               160
Asp Trp Gln Asn Cys Thr Met Val Phe Ser Ser Tyr Ser Tyr Asp Ser
    165               170               175
Ser Glu Val Ser Leu Gln Thr Gly Leu Gly Pro Asp Gly Gln Gly His
    180               185               190
Gln Glu Ile His Ile His Glu Gly Thr Phe Ile Glu Asn Gly Gln Trp
    195               200               205
Glu Asn Ile His Lys Pro Ser Arg Leu Ile Gln Pro Pro Gly Asp Pro
    210               215               220
Arg Gly Gly Arg Glu Gly Gln Arg Gln Glu Val Ile Phe Tyr Leu Ile
    225               230               235               240
Ile Arg Arg Lys Pro Leu Phe Tyr Leu Val Asn Val Ile Ala Pro Cys
    245               250               255
Ile Leu Ile Thr Leu Leu Ala Ile Phe Val Phe Tyr Leu Pro Pro Asp
    260               265               270
Ala Gly Glu Lys Met Gly Leu Ser Ile Phe Ala Leu Leu Thr Leu Thr
    275               280               285
Val Phe Leu Leu Leu Leu Ala Asp Lys Val Pro Glu Thr Ser Leu Ser
    290               295               300
Val Pro Ile Ile Ile Lys Tyr Leu Met Phe Thr Met Val Leu Val Thr
    305               310               315               320
Phe Ser Val Ile Leu Ser Val Val Val Leu Asn Leu His His Arg Ser
    325               330               335
Pro His Thr His Gln Met Pro Leu Trp Val Arg Gln Ile Phe Ile His
    340               345               350

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Lys Leu Pro Leu Tyr Leu Arg Leu Lys Arg Pro Lys Pro Glu Arg Asp  
 355 360 365  
 Leu Met Pro Glu Pro Pro His Cys Ser Ser Pro Gly Ser Gly Trp Gly  
 370 375 380  
 Arg Gly Thr Asp Glu Tyr Phe Ile Arg Lys Pro Pro Ser Asp Phe Leu  
 385 390 395 400  
 Phe Pro Lys Pro Asn Arg Phe Gln Pro Glu Leu Ser Ala Pro Asp Leu  
 405 410 415  
 Arg Arg Phe Ile Asp Gly Pro Asn Arg Ala Val Ala Leu Leu Pro Glu  
 420 425 430  
 Leu Arg Glu Val Val Ser Ser Ile Ser Tyr Ile Ala Arg Gln Leu Gln  
 435 440 445  
 Glu Gln Glu Asp His Asp Ala Leu Lys Glu Asp Trp Gln Phe Val Ala  
 450 455 460  
 Met Val Val Asp Arg Leu Phe Leu Trp Thr Phe Ile Ile Phe Thr Ser  
 465 470 475 480  
 Val Gly Thr Leu Val Ile Phe Leu Asp Ala Thr Tyr His Leu Pro Pro  
 485 490 495  
 Pro Asp Pro Phe Pro \*  
 500 501

<210> 1514  
 <211> 355  
 <212> PRT  
 <213> Homo sapiens

<400> 1514  
 Met Val Arg Ala Arg Arg Leu Asp Ser Ser Leu Ala Ser Ala Val Gly  
 1 5 10 15  
 Leu Leu His Pro Pro Pro Asp Arg Arg Gly Ala Arg Thr Gly Ala Thr  
 20 25 30  
 Ala Ser Cys Arg Leu Pro Pro Asp Ser Pro Arg Glu Leu Val Pro Lys  
 35 40 45  
 Gln Ala Pro Cys Ser Pro Ser Asp Pro Ala Leu Pro Trp Thr Leu Gly  
 50 55 60  
 His Gly Asn Gln Pro Pro Ala Val Val Pro Glu Pro Gln Gly Pro Met  
 65 70 75 80  
 Gly Pro Ala Gly Val Ala Ala Arg Pro Gly Arg Phe Phe Gly Val Tyr  
 85 90 95  
 Leu Leu Tyr Cys Leu Asn Pro Arg Tyr Arg Gly Arg Val Tyr Val Gly  
 100 105 110  
 Phe Thr Val Asn Thr Ala Arg Arg Val Gln Gln His Asn Gly Gly Arg  
 115 120 125  
 Lys Lys Gly Gly Ala Trp Arg Thr Ser Gly Arg Gly Pro Trp Glu Met  
 130 135 140  
 Val Leu Val Val His Gly Phe Pro Ser Ser Val Ala Ala Leu Arg Phe  
 145 150 155 160  
 Glu Trp Ala Trp Gln His Pro His Ala Ser Arg Arg Leu Ala His Val  
 165 170 175  
 Gly Pro Arg Leu Arg Gly Glu Thr Ala Phe Ala Phe His Leu Arg Val  
 180 185 190  
 Leu Ala His Met Leu Arg Ala Pro Pro Trp Ala Arg Leu Pro Leu Thr  
 195 200 205  
 Leu Arg Trp Val Arg Pro Asp Leu Arg Gln Asp Leu Cys Leu Pro Pro  
 210 215 220  
 Pro Pro His Val Pro Leu Ala Phe Gly Pro Pro Pro Pro Gln Ala Pro  
 225 230 235 240  
 Ala Pro Arg Arg Arg Ala Gly Pro Phe Asp Asp Ala Glu Pro Glu Pro  
 245 250 255  
 Asp Gln Gly Asp Pro Gly Ala Cys Cys Ser Leu Cys Ala Gln Thr Ile  
 260 265 270

Gln Asp Glu Glu Gly Pro Leu Cys Cys Pro His Pro Gly Cys Leu Leu  
 275 280 285  
 Arg Ala His Val Ile Cys Leu Ala Glu Glu Phe Leu Gln Glu Glu Pro  
 290 295 300  
 Gly Gln Leu Leu Pro Leu Glu Gly Gln Cys Pro Cys Cys Glu Lys Ser  
 305 310 315 320  
 Leu Leu Trp Gly Asp Leu Ile Trp Leu Cys Gln Met Asp Thr Glu Lys  
 325 330 335  
 Glu Val Glu Asp Ser Glu Leu Glu Glu Ala His Trp Thr Asp Leu Leu  
 340 345 350  
 Glu Thr \*  
 354

<210> 1515  
 <211> 1121  
 <212> PRT  
 <213> Homo sapiens

<400> 1515  
 Met Ala Arg Val Glu Ser Pro Val Pro Ala Ala Arg Ala Ser Leu Thr  
 1 5 10 15  
 Gly Ser Cys Val Leu Gly Gln Ala Met Pro Leu Arg Gly Gly Ala Gly  
 20 25 30  
 Pro Ser Pro Ala Ser His Gly Pro Thr His Gly Pro Ser Asp Pro Arg  
 35 40 45  
 Thr Cys Leu Pro Gly Arg Gly Ala Gly Gly Met Arg Pro His Gly Arg  
 50 55 60  
 Gly Ala Leu Gly Cys Cys Gly Leu Cys Ser Phe Tyr Thr Cys His Gly  
 65 70 75 80  
 Ala Ala Gly Asp Glu Ile Met His Gln Asp Ile Val Pro Leu Cys Ala  
 85 90 95  
 Ala Asp Ile Gln Asp Gln Leu Lys Lys Arg Phe Ala Tyr Leu Ser Gly  
 100 105 110  
 Gly Arg Gly Gln Asp Gly Ser Pro Val Ile Thr Phe Pro Asp Tyr Pro  
 115 120 125  
 Ala Phe Ser Glu Ile Pro Asp Lys Glu Phe Gln Asn Val Met Thr Tyr  
 130 135 140  
 Leu Thr Ser Ile Pro Ser Leu Gln Asp Ala Gly Ile Gly Phe Ile Leu  
 145 150 155 160  
 Val Ile Asp Arg Arg Arg Asp Lys Trp Thr Ser Val Lys Ala Ser Val  
 165 170 175  
 Leu Arg Ile Ala Ala Ser Phe Pro Ala Asn Leu Gln Leu Val Leu Val  
 180 185 190  
 Leu Arg Pro Thr Gly Phe Phe Gln Arg Thr Leu Ser Asp Ile Ala Phe  
 195 200 205  
 Lys Phe Asn Arg Asp Asp Phe Lys Met Lys Val Pro Val Ile Met Leu  
 210 215 220  
 Ser Ser Val Pro Asp Leu His Gly Tyr Ile Asp Lys Ser Gln Leu Thr  
 225 230 235 240  
 Glu Asp Leu Gly Gly Thr Leu Asp Tyr Cys His Ser Arg Trp Leu Cys  
 245 250 255  
 Gln Arg Thr Ala Ile Glu Ser Phe Ala Leu Met Val Lys Gln Thr Ala  
 260 265 270  
 Gln Met Leu Gln Ser Phe Gly Thr Glu Leu Ala Glu Thr Glu Leu Pro  
 275 280 285  
 Asn Asp Val Gln Ser Thr Ser Ser Val Leu Cys Ala His Thr Glu Lys  
 290 295 300  
 Lys Asp Lys Ala Lys Glu Asp Leu Arg Leu Ala Leu Lys Glu Gly His  
 305 310 315 320  
 Ser Val Leu Glu Ser Leu Arg Glu Leu Gln Ala Glu Gly Ser Glu Pro  
 325 330 335

Ser Val	Asn	Gln	Asp	Gln	Leu	Asp	Asn	Gln	Ala	Thr	Val	Gln	Arg	Leu
		340					345					350		
Leu Ala	Gln	Leu	Asn	Glu	Thr	Glu	Ala	Ala	Phe	Asp	Glu	Phe	Trp	Ala
	355					360					365			
Lys His	Gln	Gln	Lys	Leu	Glu	Gln	Cys	Leu	Gln	Leu	Arg	His	Phe	Glu
	370					375					380			
Gln Gly	Phe	Arg	Glu	Val	Lys	Ala	Ile	Leu	Asp	Ala	Ala	Ser	Gln	Lys
385				390					395					400
Ile Ala	Thr	Phe	Thr	Asp	Ile	Gly	Asn	Ser	Leu	Ala	His	Val	Glu	His
			405					410					415	
Leu Leu	Arg	Asp	Leu	Ala	Ser	Phe	Glu	Glu	Lys	Ser	Gly	Val	Ala	Val
		420					425					430		
Glu Arg	Ala	Arg	Ala	Leu	Ser	Leu	Asp	Gly	Glu	Gln	Leu	Ile	Gly	Asn
	435					440					445			
Lys His	Tyr	Ala	Val	Asp	Ser	Ile	Arg	Pro	Lys	Cys	Gln	Glu	Leu	Arg
	450				455					460				
His Leu	Cys	Asp	Gln	Phe	Ser	Ala	Glu	Ile	Ala	Arg	Arg	Arg	Gly	Leu
465				470					475					480
Leu Ser	Lys	Ser	Leu	Glu	Leu	His	Arg	Arg	Leu	Glu	Thr	Ser	Met	Lys
			485					490					495	
Trp Cys	Asp	Glu	Gly	Ile	Tyr	Leu	Leu	Ala	Ser	Gln	Pro	Val	Asp	Lys
		500					505					510		
Cys Gln	Ser	Gln	Asp	Gly	Ala	Glu	Ala	Ala	Leu	Gln	Glu	Ile	Glu	Lys
	515					520					525			
Phe Leu	Glu	Thr	Gly	Ala	Glu	Asn	Lys	Ile	Gln	Glu	Leu	Asn	Ala	Ile
	530				535					540				
Tyr Lys	Glu	Tyr	Glu	Ser	Ile	Leu	Asn	Gln	Asp	Leu	Met	Glu	His	Val
545				550					555					560
Arg Lys	Val	Phe	Gln	Lys	Gln	Ala	Ser	Met	Glu	Glu	Val	Phe	His	Arg
			565					570					575	
Arg Gln	Ala	Ser	Leu	Lys	Lys	Leu	Ala	Ala	Arg	Gln	Thr	Arg	Pro	Val
		580					585					590		
Gln Pro	Val	Ala	Pro	Arg	Pro	Glu	Ala	Leu	Ala	Lys	Ser	Pro	Cys	Pro
	595					600					605			
Ser Pro	Gly	Ile	Arg	Arg	Gly	Ser	Glu	Asn	Ser	Ser	Ser	Glu	Gly	Gly
	610				615					620				
Ala Leu	Arg	Arg	Gly	Pro	Tyr	Arg	Arg	Ala	Lys	Ser	Glu	Val	Ser	Glu
625				630					635					640
Ser Arg	Gln	Gly	Arg	Gly	Ser	Ala	Gly	Glu	Glu	Glu	Glu	Ser	Leu	Ala
			645					650					655	
Ile Leu	Arg	Arg	His	Val	Met	Ser	Glu	Leu	Leu	Asp	Thr	Glu	Arg	Ala
		660					665					670		
Tyr Val	Glu	Glu	Leu	Leu	Cys	Val	Leu	Glu	Gly	Tyr	Ala	Ala	Glu	Met
	675					680					685			
Asp Asn	Pro	Leu	Met	Ala	His	Leu	Leu	Ser	Thr	Gly	Leu	His	Asn	Lys
	690				695					700				
Lys Asp	Val	Leu	Phe	Gly	Asn	Met	Glu	Glu	Ile	Tyr	His	Phe	His	Asn
705				710					715					720
Arg Ile	Phe	Leu	Arg	Glu	Leu	Glu	Asn	Tyr	Thr	Asp	Cys	Pro	Glu	Leu
			725					730					735	
Val Gly	Arg	Cys	Phe	Leu	Glu	Arg	Met	Glu	Asp	Phe	Gln	Ile	Tyr	Glu
			740				745					750		
Lys Tyr	Cys	Gln	Asn	Lys	Pro	Arg	Ser	Glu	Ser	Leu	Trp	Arg	Gln	Cys
	755					760					765			
Ser Asp	Cys	Pro	Phe	Phe	Gln	Glu	Cys	Gln	Arg	Lys	Leu	Asp	His	Lys
	770				775					780				
Leu Ser	Leu	Asp	Ser	Tyr	Leu	Leu	Lys	Pro	Val	Gln	Arg	Ile	Thr	Lys
785				790					795					800
Tyr Gln	Leu	Leu	Leu	Lys	Glu	Met	Leu	Lys	Tyr	Ser	Arg	Asn	Cys	Glu
			805					810					815	
Gly Ala	Glu	Asp	Leu	Gln	Glu	Ala	Leu	Ser	Ser	Ile	Leu	Gly	Ile	Leu
		820					825					830		
Lys Ala	Val	Asn	Asp	Ser	Met	His	Leu	Ile	Ala	Ile	Thr	Gly	Tyr	Asp
	835					840						845		

Gly Asn Leu Gly Asp Leu Gly Lys Leu Leu Met Gln Gly Ser Phe Ser  
 850 855 860  
 Val Trp Thr Asp His Lys Arg Gly His Thr Lys Val Lys Glu Leu Ala  
 865 870 875 880  
 Arg Phe Lys Pro Met Gln Arg His Leu Phe Leu His Glu Lys Ala Val  
 885 890 895  
 Leu Phe Cys Lys Lys Arg Glu Glu Asn Gly Glu Gly Tyr Glu Lys Ala  
 900 905 910  
 Pro Ser Tyr Ser Tyr Lys Gln Ser Leu Asn Met Ala Ala Val Gly Ile  
 915 920 925  
 Thr Glu Asn Val Lys Gly Asp Ala Lys Lys Phe Glu Ile Trp Tyr Asn  
 930 935 940  
 Ala Arg Glu Glu Val Tyr Ile Val Gln Ala Pro Thr Pro Glu Ile Lys  
 945 950 955 960  
 Ala Ala Trp Val Asn Glu Ile Arg Lys Val Leu Thr Ser Gln Leu Gln  
 965 970 975  
 Ala Cys Arg Glu Ala Ser Gln His Arg Ala Leu Glu Gln Ser Gln Ser  
 980 985 990  
 Leu Pro Leu Pro Ala Pro Thr Ser Thr Ser Pro Ser Arg Gly Asn Ser  
 995 1000 1005  
 Arg Asn Ile Lys Lys Leu Glu Glu Arg Lys Thr Asp Pro Leu Ser Leu  
 1010 1015 1020  
 Glu Gly Tyr Val Ser Ser Ala Pro Leu Thr Lys Pro Pro Glu Lys Gly  
 1025 1030 1035 1040  
 Lys Gly Trp Ser Lys Thr Ser His Ser Leu Glu Ala Pro Glu Asp Asp  
 1045 1050 1055  
 Gly Gly Trp Ser Ser Ala Glu Glu Gln Ile Asn Ser Ser Asp Ala Glu  
 1060 1065 1070  
 Glu Asp Gly Gly Leu Gly Pro Lys Lys Leu Val Pro Gly Lys Tyr Thr  
 1075 1080 1085  
 Val Val Ala Asp His Glu Lys Gly Gly Pro Asp Ala Leu Arg Val Arg  
 1090 1095 1100  
 Ser Gly Asp Val Val Glu Leu Val Gln Glu Gly Asp Glu Gly Leu Trp  
 1105 1110 1115 1120  
 \*

<210> 1516  
 <211> 1961  
 <212> PRT  
 <213> Homo sapiens

<400> 1516  
 Met Ala Gln Gln Ala Ala Asp Lys Tyr Leu Tyr Val Asp Lys Asn Phe  
 1 5 10 15  
 Ile Asn Asn Pro Leu Ala Gln Ala Asp Trp Ala Ala Lys Lys Leu Val  
 20 25 30  
 Trp Val Pro Ser Asp Lys Ser Gly Phe Glu Pro Ala Ser Leu Lys Glu  
 35 40 45  
 Glu Val Gly Glu Glu Ala Ile Val Glu Leu Val Glu Asn Gly Lys Lys  
 50 55 60  
 Val Lys Val Asn Lys Asp Ile Gln Lys Met Asn Pro Pro Lys Phe  
 65 70 75 80  
 Ser Lys Val Glu Asp Met Ala Glu Leu Thr Cys Leu Asn Glu Ala Ser  
 85 90 95  
 Val Leu His Asn Leu Lys Glu Arg Tyr Tyr Ser Gly Leu Ile Tyr Thr  
 100 105 110  
 Tyr Ser Gly Leu Phe Cys Val Val Ile Asn Pro Tyr Lys Asn Leu Pro  
 115 120 125  
 Ile Tyr Ser Glu Glu Ile Val Glu Met Tyr Lys Gly Lys Lys Arg His  
 130 135 140

Glu	Met	Pro	Pro	His	Ile	Tyr	Ala	Ile	Thr	Asp	Thr	Ala	Tyr	Arg	Ser	145	150	155	160
Met	Met	Gln	Asp	Arg	Glu	Asp	Gln	Ser	Ile	Leu	Cys	Thr	Gly	Glu	Ser	165	170	175	
Gly	Ala	Gly	Lys	Thr	Glu	Asn	Thr	Lys	Lys	Val	Ile	Gln	Tyr	Leu	Ala	180	185	190	
Tyr	Val	Ala	Ser	Ser	His	Lys	Ser	Lys	Lys	Asp	Gln	Gly	Glu	Leu	Glu	195	200	205	
Arg	Gln	Leu	Leu	Gln	Ala	Asn	Pro	Ile	Leu	Glu	Ala	Phe	Gly	Asn	Ala	210	215	220	
Lys	Thr	Val	Lys	Asn	Asp	Asn	Ser	Ser	Arg	Phe	Gly	Lys	Phe	Ile	Arg	225	230	235	240
Ile	Asn	Phe	Asp	Val	Asn	Gly	Tyr	Ile	Val	Gly	Ala	Asn	Ile	Glu	Thr	245	250	255	
Tyr	Leu	Leu	Glu	Lys	Ser	Arg	Ala	Ile	Arg	Gln	Ala	Lys	Glu	Glu	Arg	260	265	270	
Thr	Phe	His	Ile	Phe	Tyr	Tyr	Leu	Leu	Ser	Gly	Ala	Gly	Glu	His	Leu	275	280	285	
Lys	Thr	Asp	Leu	Leu	Leu	Glu	Pro	Tyr	Asn	Lys	Tyr	Arg	Phe	Leu	Ser	290	295	300	
Asn	Gly	His	Val	Thr	Ile	Pro	Gly	Gln	Gln	Asp	Lys	Asp	Met	Phe	Gln	305	310	315	320
Glu	Thr	Met	Glu	Ala	Met	Arg	Ile	Met	Gly	Ile	Pro	Glu	Glu	Glu	Gln	325	330	335	
Met	Gly	Leu	Leu	Arg	Val	Ile	Ser	Gly	Val	Leu	Gln	Leu	Gly	Asn	Ile	340	345	350	
Val	Phe	Lys	Lys	Glu	Arg	Asn	Thr	Asp	Gln	Ala	Ser	Met	Pro	Asp	Asn	355	360	365	
Thr	Ala	Ala	Gln	Lys	Val	Ser	His	Leu	Leu	Gly	Ile	Asn	Val	Thr	Asp	370	375	380	
Phe	Thr	Arg	Gly	Ile	Leu	Thr	Pro	Arg	Ile	Lys	Val	Gly	Arg	Asp	Tyr	385	390	395	400
Val	Gln	Lys	Ala	Gln	Thr	Lys	Glu	Gln	Ala	Asp	Phe	Ala	Ile	Glu	Ala	405	410	415	
Leu	Ala	Lys	Ala	Thr	Tyr	Glu	Arg	Met	Phe	Arg	Trp	Leu	Val	Leu	Arg	420	425	430	
Ile	Asn	Lys	Ala	Leu	Asp	Lys	Thr	Lys	Arg	Gln	Gly	Ala	Ser	Phe	Ile	435	440	445	
Gly	Ile	Leu	Asp	Ile	Ala	Gly	Phe	Glu	Ile	Phe	Asp	Leu	Asn	Ser	Phe	450	455	460	
Glu	Gln	Leu	Cys	Ile	Asn	Tyr	Thr	Asn	Glu	Lys	Leu	Gln	Gln	Leu	Phe	465	470	475	480
Asn	His	Thr	Met	Phe	Ile	Leu	Glu	Gln	Glu	Glu	Tyr	Gln	Arg	Glu	Gly	485	490	495	
Ile	Glu	Trp	Asn	Phe	Ile	Asp	Phe	Gly	Leu	Asp	Leu	Gln	Pro	Cys	Ile	500	505	510	
Asp	Leu	Ile	Glu	Lys	Pro	Ala	Gly	Pro	Pro	Gly	Ile	Leu	Ala	Leu	Leu	515	520	525	
Asp	Glu	Glu	Cys	Trp	Phe	Pro	Lys	Ala	Thr	Asp	Lys	Ser	Phe	Val	Glu	530	535	540	
Lys	Val	Met	Gln	Glu	Gln	Gly	Thr	His	Pro	Lys	Phe	Gln	Lys	Pro	Lys	545	550	555	560
Gln	Leu	Lys	Asp	Lys	Ala	Asp	Phe	Cys	Ile	Ile	His	Tyr	Ala	Gly	Lys	565	570	575	
Val	Asp	Tyr	Lys	Ala	Asp	Glu	Trp	Leu	Met	Lys	Asn	Met	Asp	Pro	Leu	580	585	590	
Asn	Asp	Asn	Ile	Ala	Thr	Leu	Leu	His	Gln	Ser	Ser	Asp	Lys	Phe	Val	595	600	605	
Ser	Glu	Leu	Trp	Lys	Asp	Val	Asp	Arg	Ile	Ile	Gly	Leu	Asp	Gln	Val	610	615	620	
Ala	Gly	Met	Ser	Glu	Thr	Ala	Leu	Pro	Gly	Ala	Phe	Lys	Thr	Arg	Lys	625	630	635	640
Gly	Met	Phe	Arg	Thr	Val	Gly	Gln	Leu	Tyr	Lys	Glu	Gln	Leu	Ala	Lys	645	650	655	

Leu Met Ala Thr Leu Arg Asn Thr Asn Pro Asn Phe Val Arg Cys Ile  
 660 665 670  
 Ile Pro Asn His Glu Lys Lys Ala Gly Lys Leu Asp Pro His Leu Val  
 675 680 685  
 Leu Asp Gln Leu Arg Cys Asn Gly Val Leu Glu Gly Ile Arg Ile Cys  
 690 695 700  
 Arg Gln Gly Phe Pro Asn Arg Val Val Phe Gln Glu Phe Arg Gln Arg  
 705 710 715 720  
 Tyr Glu Ile Leu Thr Pro Asn Ser Ile Pro Lys Gly Phe Met Asp Gly  
 725 730 735  
 Lys Gln Ala Cys Val Leu Met Ile Lys Ala Leu Glu Leu Asp Ser Asn  
 740 745 750  
 Leu Tyr Arg Ile Gly Gln Ser Lys Val Phe Phe Arg Ala Gly Val Leu  
 755 760 765  
 Ala His Leu Glu Glu Glu Arg Asp Leu Lys Ile Thr Asp Val Ile Ile  
 770 775 780  
 Gly Phe Gln Ala Cys Cys Arg Gly Tyr Leu Ala Arg Lys Ala Phe Ala  
 785 790 795 800  
 Lys Arg Gln Gln Gln Leu Thr Ala Met Lys Val Leu Gln Arg Asn Cys  
 805 810 815  
 Ala Ala Tyr Leu Lys Leu Arg Asn Trp Gln Trp Trp Arg Leu Phe Thr  
 820 825 830  
 Lys Val Lys Pro Leu Leu Gln Val Ser Arg Gln Glu Glu Glu Met Met  
 835 840 845  
 Ala Lys Glu Glu Glu Leu Val Lys Val Arg Glu Lys Gln Leu Ala Ala  
 850 855 860  
 Glu Asn Arg Leu Thr Glu Met Glu Thr Leu Gln Ser Gln Leu Met Ala  
 865 870 875 880  
 Glu Lys Leu Gln Leu Gln Glu Gln Leu Gln Ala Glu Thr Glu Leu Cys  
 885 890 895  
 Ala Glu Ala Glu Glu Leu Arg Ala Arg Leu Thr Ala Lys Lys Gln Glu  
 900 905 910  
 Leu Glu Glu Ile Cys His Asp Leu Glu Ala Arg Val Glu Glu Glu Glu  
 915 920 925  
 Glu Arg Cys Gln His Leu Gln Ala Glu Lys Lys Lys Met Gln Gln Asn  
 930 935 940  
 Ile Gln Glu Leu Glu Glu Gln Leu Glu Glu Glu Glu Ser Ala Arg Gln  
 945 950 955 960  
 Lys Leu Gln Leu Glu Lys Val Thr Thr Glu Ala Lys Leu Lys Lys Leu  
 965 970 975  
 Glu Glu Glu Gln Ile Ile Leu Glu Asp Gln Asn Cys Lys Leu Ala Lys  
 980 985 990  
 Glu Lys Lys Leu Leu Glu Asp Arg Ile Ala Glu Phe Thr Thr Asn Leu  
 995 1000 1005  
 Thr Glu Glu Glu Glu Lys Ser Lys Ser Leu Ala Lys Leu Lys Asn Lys  
 1010 1015 1020  
 His Glu Ala Met Ile Thr Asp Leu Glu Glu Arg Leu Arg Arg Glu Glu  
 1025 1030 1035 1040  
 Lys Gln Arg Gln Glu Leu Glu Lys Thr Arg Arg Lys Leu Glu Gly Asp  
 1045 1050 1055  
 Ser Thr Asp Leu Ser Asp Gln Ile Ala Glu Leu Gln Ala Gln Ile Ala  
 1060 1065 1070  
 Glu Leu Lys Met Gln Leu Ala Lys Lys Glu Glu Glu Leu Gln Ala Ala  
 1075 1080 1085  
 Leu Ala Arg Val Glu Glu Glu Ala Ala Gln Lys Asn Met Ala Leu Lys  
 1090 1095 1100  
 Lys Ile Arg Glu Leu Glu Ser Gln Ile Ser Glu Leu Gln Glu Asp Leu  
 1105 1110 1115 1120  
 Glu Ser Glu Arg Ala Ser Arg Asn Lys Ala Glu Lys Gln Lys Arg Asp  
 1125 1130 1135  
 Leu Gly Glu Glu Leu Glu Ala Leu Lys Thr Glu Leu Glu Asp Thr Leu  
 1140 1145 1150  
 Asp Ser Thr Ala Ala Gln Gln Glu Leu Arg Ser Lys Arg Glu Gln Glu  
 1155 1160 1165

Val Asn Ile Leu Lys Lys Thr Leu Glu Glu Glu Ala Lys Thr His Glu  
 1170 1175 1180  
 Ala Gln Ile Gln Glu Met Arg Gln Lys His Ser Gln Ala Val Glu Glu  
 1185 1190 1195 1200  
 Leu Ala Glu Gln Leu Glu Gln Thr Lys Arg Val Lys Ala Asn Leu Glu  
 1205 1210 1215  
 Lys Ala Lys Gln Thr Leu Glu Asn Glu Arg Gly Glu Leu Ala Asn Glu  
 1220 1225 1230  
 Val Lys Val Leu Leu Gln Gly Lys Gly Asp Ser Glu His Lys Arg Lys  
 1235 1240 1245  
 Lys Val Glu Ala Gln Leu Gln Glu Leu Gln Val Lys Phe Asn Glu Gly  
 1250 1255 1260  
 Glu Arg Val Arg Thr Glu Leu Ala Asp Lys Val Thr Lys Leu Gln Val  
 1265 1270 1275 1280  
 Glu Leu Asp Asn Val Thr Gly Leu Leu Ser Gln Ser Asp Ser Lys Ser  
 1285 1290 1295  
 Ser Lys Leu Thr Lys Asp Phe Ser Ala Leu Glu Ser Gln Leu Gln Asp  
 1300 1305 1310  
 Thr Gln Glu Leu Leu Gln Glu Glu Asn Arg Gln Lys Leu Ser Leu Ser  
 1315 1320 1325  
 Thr Lys Leu Lys Gln Val Glu Asp Glu Lys Asn Ser Phe Arg Glu Gln  
 1330 1335 1340  
 Leu Glu Glu Glu Glu Glu Ala Lys His Asn Leu Glu Lys Gln Ile Ala  
 1345 1350 1355 1360  
 Thr Leu His Ala Gln Val Ala Asp Met Lys Lys Lys Met Glu Asp Ser  
 1365 1370 1375  
 Val Gly Cys Leu Glu Thr Ala Glu Glu Val Lys Arg Lys Leu Gln Lys  
 1380 1385 1390  
 Asp Leu Glu Gly Leu Ser Gln Arg His Glu Glu Lys Val Ala Ala Tyr  
 1395 1400 1405  
 Asp Lys Leu Glu Lys Thr Lys Thr Arg Leu Gln Gln Glu Leu Asp Asp  
 1410 1415 1420  
 Leu Leu Val Asp Leu Asp His Gln Arg Gln Ser Ala Cys Asn Leu Glu  
 1425 1430 1435 1440  
 Lys Lys Gln Lys Lys Phe Asp Gln Leu Leu Ala Glu Glu Lys Thr Ile  
 1445 1450 1455  
 Ser Ala Lys Tyr Ala Glu Glu Arg Asp Arg Ala Glu Ala Glu Ala Arg  
 1460 1465 1470  
 Glu Lys Glu Thr Lys Ala Leu Ser Leu Ala Arg Ala Leu Glu Glu Ala  
 1475 1480 1485  
 Met Glu Gln Lys Ala Glu Leu Glu Arg Leu Asn Lys Gln Phe Arg Thr  
 1490 1495 1500  
 Glu Met Glu Asp Leu Met Ser Ser Lys Asp Asp Val Gly Lys Ser Val  
 1505 1510 1515 1520  
 His Glu Leu Glu Lys Ser Lys Arg Ala Leu Glu Gln Gln Val Glu Glu  
 1525 1530 1535  
 Met Lys Thr Gln Leu Glu Glu Leu Glu Asp Glu Leu Gln Ala Thr Glu  
 1540 1545 1550  
 Asp Ala Lys Leu Arg Leu Glu Val Asn Leu Gln Ala Met Lys Ala Gln  
 1555 1560 1565  
 Phe Glu Arg Asp Leu Gln Gly Arg Asp Glu Gln Ser Glu Glu Lys Lys  
 1570 1575 1580  
 Lys Gln Leu Val Arg Gln Val Arg Glu Met Glu Ala Glu Leu Glu Asp  
 1585 1590 1595 1600  
 Glu Arg Lys Gln Arg Ser Met Ala Val Ala Ala Arg Lys Lys Leu Glu  
 1605 1610 1615  
 Met Asp Leu Lys Asp Leu Glu Ala His Ile Asp Ser Ala Asn Lys Asn  
 1620 1625 1630  
 Arg Asp Glu Ala Ile Lys Gln Leu Arg Lys Leu Gln Ala Gln Met Lys  
 1635 1640 1645  
 Asp Cys Met Arg Glu Leu Asp Thr Arg Ala Ser Arg Glu Glu Ile  
 1650 1655 1660  
 Leu Ala Gln Ala Lys Glu Asn Glu Lys Lys Leu Lys Ser Met Glu Ala  
 1665 1670 1675 1680

Glu Met Ile Gln Leu Gln Glu Glu Leu Ala Ala Ala Glu Arg Ala Lys  
 1685 1690 1695  
 Arg Gln Ala Gln Gln Glu Arg Asp Glu Leu Ala Asp Glu Ile Ala Asn  
 1700 1705 1710  
 Ser Ser Gly Lys Gly Ala Leu Ala Leu Glu Glu Lys Arg Arg Leu Glu  
 1715 1720 1725  
 Ala Arg Ile Ala Gln Leu Glu Glu Glu Leu Glu Glu Gln Gly Asn  
 1730 1735 1740  
 Thr Glu Leu Ile Asn Asp Arg Leu Lys Lys Ala Asn Leu Gln Ile Asp  
 1745 1750 1755 1760  
 Gln Ile Asn Thr Asp Leu Asn Leu Glu Arg Ser His Ala Gln Lys Asn  
 1765 1770 1775  
 Glu Asn Ala Arg Gln Gln Leu Glu Arg Gln Asn Lys Glu Leu Lys Val  
 1780 1785 1790  
 Lys Leu Gln Glu Met Glu Gly Thr Val Lys Ser Lys Tyr Lys Ala Ser  
 1795 1800 1805  
 Ile Thr Ala Leu Glu Ala Lys Ile Ala Gln Leu Glu Glu Gln Leu Asp  
 1810 1815 1820  
 Asn Glu Thr Lys Glu Arg Gln Ala Ala Cys Lys Gln Val Arg Arg Thr  
 1825 1830 1835 1840  
 Glu Lys Lys Leu Lys Asp Val Leu Leu Gln Val Asp Asp Glu Arg Arg  
 1845 1850 1855  
 Asn Ala Glu Gln Tyr Lys Asp Gln Ala Asp Lys Ala Ser Thr Arg Leu  
 1860 1865 1870  
 Lys Gln Leu Lys Arg Gln Leu Glu Glu Ala Glu Glu Glu Ala Gln Arg  
 1875 1880 1885  
 Ala Asn Ala Ser Arg Arg Lys Leu Gln Arg Glu Leu Glu Asp Ala Thr  
 1890 1895 1900  
 Glu Thr Ala Asp Ala Met Asn Arg Glu Val Ser Ser Leu Lys Asn Lys  
 1905 1910 1915 1920  
 Leu Arg Arg Gly Asp Leu Pro Phe Val Val Pro Arg Arg Met Ala Arg  
 1925 1930 1935  
 Lys Gly Ala Gly Asp Gly Ser Asp Glu Glu Val Asp Gly Lys Ala Asp  
 1940 1945 1950  
 Gly Ala Glu Ala Lys Pro Ala Glu \*  
 1955 1960

&lt;210&gt; 1517

&lt;211&gt; 523

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1517

Met Ser Leu Arg Val His Thr Leu Pro Thr Leu Leu Gly Ala Val Val  
 1 5 10 15  
 Arg Pro Gly Cys Arg Glu Leu Leu Cys Leu Leu Met Ile Thr Val Thr  
 20 25 30  
 Val Gly Pro Gly Ala Ser Gly Val Cys Pro Thr Ala Cys Ile Cys Ala  
 35 40 45  
 Thr Asp Ile Val Ser Cys Thr Asn Lys Asn Leu Ser Lys Val Pro Gly  
 50 55 60  
 Asn Leu Phe Arg Leu Ile Lys Arg Leu Asp Leu Ser Tyr Asn Arg Ile  
 65 70 75 80  
 Gly Leu Leu Asp Ser Glu Trp Ile Pro Val Ser Phe Ala Lys Leu Asn  
 85 90 95  
 Thr Leu Ile Leu Arg His Asn Asn Ile Thr Ser Ile Ser Thr Gly Ser  
 100 105 110  
 Phe Ser Thr Thr Pro Asn Leu Lys Cys Leu Asp Leu Ser Ser Asn Lys  
 115 120 125  
 Leu Lys Thr Val Lys Asn Ala Val Phe Gln Glu Leu Lys Val Leu Glu  
 130 135 140



Val Leu Leu Leu Tyr Asn Asn His Ile Ser Tyr Leu Asp Pro Ser Ala  
 145 150 155 160  
 Phe Gly Gly Leu Ser Gln Leu Gln Lys Leu Tyr Leu Ser Gly Asn Phe  
 165 170 175  
 Leu Thr Gln Phe Pro Met Asp Leu Tyr Val Gly Arg Phe Lys Leu Ala  
 180 185 190  
 Glu Leu Met Phe Leu Asp Val Ser Tyr Asn Arg Ile Pro Ser Met Pro  
 195 200 205  
 Met His His Ile Asn Leu Val Pro Gly Lys Gln Leu Arg Gly Ile Tyr  
 210 215 220  
 Leu His Gly Asn Pro Phe Val Cys Asp Cys Ser Leu Tyr Ser Leu Leu  
 225 230 235 240  
 Val Phe Trp Tyr Arg Arg His Phe Ser Ser Val Met Asp Phe Lys Asn  
 245 250 255  
 Asp Tyr Thr Cys Arg Leu Trp Ser Asp Ser Arg His Ser Arg Gln Val  
 260 265 270  
 Leu Leu Leu Gln Asp Ser Phe Met Asn Cys Ser Asp Ser Ile Ile Asn  
 275 280 285  
 Gly Ser Phe Arg Ala Leu Gly Phe Ile His Glu Ala Gln Val Gly Glu  
 290 295 300  
 Arg Leu Met Val His Cys Asp Ser Lys Thr Gly Asn Ala Asn Thr Asp  
 305 310 315 320  
 Phe Ile Trp Val Gly Pro Asp Asn Arg Leu Leu Glu Pro Asp Lys Glu  
 325 330 335  
 Met Glu Asn Phe Tyr Val Phe His Asn Gly Ser Leu Val Ile Glu Ser  
 340 345 350  
 Pro Arg Phe Glu Asp Ala Gly Val Tyr Ser Cys Ile Ala Met Asn Lys  
 355 360 365  
 Gln Arg Leu Leu Asn Glu Thr Val Asp Val Thr Ile Asn Val Ser Asn  
 370 375 380  
 Phe Thr Val Ser Arg Ser His Ala His Glu Ala Phe Asn Thr Ala Phe  
 385 390 395 400  
 Thr Thr Leu Ala Ala Cys Val Ala Ser Ile Val Leu Val Leu Leu Tyr  
 405 410 415  
 Leu Tyr Leu Thr Pro Cys Pro Cys Lys Cys Lys Thr Lys Arg Gln Lys  
 420 425 430  
 Asn Met Leu His Gln Ser Asn Ala His Ser Ser Ile Leu Ser Pro Gly  
 435 440 445  
 Pro Ala Ser Asp Ala Ser Ala Asp Glu Arg Lys Ala Gly Ala Gly Lys  
 450 455 460  
 Arg Val Val Phe Leu Glu Pro Leu Lys Asp Thr Ala Ala Gly Gln Asn  
 465 470 475 480  
 Gly Lys Val Arg Leu Phe Pro Ser Glu Ala Val Ile Ala Glu Gly Ile  
 485 490 495  
 Leu Lys Ser Thr Arg Gly Lys Ser Asp Ser Asp Ser Val Asn Ser Val  
 500 505 510  
 Phe Ser Asp Thr Pro Phe Val Ala Ser Thr \*  
 515 520 522

&lt;210&gt; 1518

&lt;211&gt; 359

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1518

Met Pro Glu Asp Val Arg Glu Lys Lys Glu Asn Leu Leu Leu Asn Ser  
 1 5 10 15  
 Glu Arg Ser Thr Arg Leu Leu Thr Lys Thr Ser His Ser Gln Gly Gly  
 20 25 30  
 Asp Gln Ala Leu Ser Lys Ser Thr Gly Ser Pro Thr Glu Lys Leu Ile  
 35 40 45

Glu Lys Arg Gln Gly Ala Lys Thr Val Phe Asn Lys Phe Ser Asn Met  
 50 55 60  
 Asn Trp Pro Val Asp Ile His Pro Leu Asn Lys Ser Leu Val Lys Asp  
 65 70 75 80  
 Asn Lys Trp Lys Lys Thr Glu Glu Thr Gln Glu Lys Arg Arg Ser Phe  
 85 90 95  
 Leu Gln Glu Phe Cys Lys Lys Tyr Gly Gly Val Ser His His Gln Ser  
 100 105 110  
 His Leu Phe His Thr Val Ser Arg Ile Tyr Val Glu Asp Lys His Lys  
 115 120 125  
 Ile Leu Tyr Cys Glu Val Pro Lys Ala Gly Cys Ser Asn Trp Lys Arg  
 130 135 140  
 Ile Leu Met Val Leu Asn Gly Leu Ala Ser Ser Ala Tyr Asn Ile Ser  
 145 150 155 160  
 His Asn Ala Val His Tyr Gly Lys His Leu Lys Lys Leu Asp Ser Phe  
 165 170 175  
 Asp Leu Lys Gly Ile Tyr Thr Arg Leu Asn Thr Tyr Thr Lys Ala Val  
 180 185 190  
 Phe Val Arg Asp Pro Met Glu Arg Leu Val Ser Ala Phe Arg Asp Lys  
 195 200 205  
 Phe Glu His Pro Asn Ser Tyr Tyr His Pro Val Phe Gly Lys Ala Ile  
 210 215 220  
 Ile Lys Lys Tyr Arg Pro Asn Ala Cys Glu Glu Ala Leu Ile Asn Gly  
 225 230 235 240  
 Ser Gly Val Lys Phe Lys Glu Phe Ile His Tyr Leu Leu Asp Ser His  
 245 250 255  
 Arg Pro Val Gly Met Asp Ile His Trp Glu Lys Val Ser Lys Leu Cys  
 260 265 270  
 Tyr Pro Cys Leu Ile Asn Tyr Asp Phe Val Gly Lys Phe Glu Thr Leu  
 275 280 285  
 Glu Glu Asp Ala Asn Tyr Phe Leu Gln Met Ile Gly Ala Pro Lys Glu  
 290 295 300  
 Leu Lys Phe Pro Asn Phe Lys Asp Arg His Ser Ser Asp Glu Arg Thr  
 305 310 315 320  
 Asn Ala Gln Val Val Arg Gln Tyr Leu Lys Asp Leu Thr Arg Thr Glu  
 325 330 335  
 Arg Gln Leu Ile Tyr Asp Phe Tyr Tyr Leu Asp Tyr Leu Met Phe Asn  
 340 345 350  
 Tyr Thr Thr Pro Phe Leu \*  
 355 358

&lt;210&gt; 1519

&lt;211&gt; 646

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1519

Met Pro Leu Lys Ser Pro Val Pro Phe Leu Pro Gly Thr Ser Pro Ser  
 1 5 10 15  
 Ala Asp Gly Pro Asp Ser Phe Ser Cys Val Phe Glu Ala Ile Leu Glu  
 20 25 30  
 Ser His Arg Ala Lys Gly Thr Ser Tyr Thr Ser Leu Ala Ser Leu Glu  
 35 40 45  
 Ala Leu Ala Ser Pro Gly Pro Thr Gln Ser Pro Phe Phe Thr Phe Glu  
 50 55 60  
 Leu Pro Pro Gln Pro Pro Ala Pro Arg Pro Asp Pro Pro Ala Pro Ala  
 65 70 75 80  
 Pro Leu Ala Pro Leu Glu Pro Asp Ser Gly Thr Ser Ser Ala Ala Asp  
 85 90 95  
 Gly Pro Trp Thr Gln Arg Gly Glu Glu Glu Glu Ala Glu Ala Arg Ala  
 100 105 110

Lys Leu Ala Pro Gly Arg Glu Pro Pro Ser Pro Cys His Ser Glu Asp  
 115 120 125  
 Ser Leu Gly Leu Gly Ala Ala Pro Leu Gly Ser Glu Pro Pro Leu Ser  
 130 135 140  
 Gln Leu Val Ser Asp Ser Asp Ser Glu Leu Asp Ser Thr Glu Arg Leu  
 145 150 155 160  
 Ala Leu Gly Ser Thr Asp Thr Leu Ser Asn Gly Gln Lys Ala Asp Leu  
 165 170 175  
 Glu Ala Ala Gln Arg Leu Ala Lys Arg Leu Tyr Arg Leu Asp Gly Phe  
 180 185 190  
 Arg Lys Ala Asp Val Ala Arg His Leu Gly Lys Asn Asn Asp Phe Ser  
 195 200 205  
 Lys Leu Val Ala Gly Glu Tyr Leu Lys Phe Phe Val Phe Thr Gly Met  
 210 215 220  
 Thr Leu Asp Gln Ala Leu Arg Val Phe Leu Lys Glu Leu Ala Leu Met  
 225 230 235 240  
 Gly Glu Thr Gln Glu Arg Glu Arg Val Leu Ala His Phe Ser Gln Arg  
 245 250 255  
 Tyr Phe Gln Cys Asn Pro Glu Ala Leu Ser Ser Glu Asp Gly Ala His  
 260 265 270  
 Thr Leu Thr Cys Ala Leu Met Leu Leu Asn Thr Asp Leu His Gly His  
 275 280 285  
 Asn Ile Gly Lys Arg Met Thr Cys Gly Asp Phe Ile Gly Asn Leu Glu  
 290 295 300  
 Gly Leu Asn Asp Gly Gly Asp Phe Pro Arg Glu Leu Leu Lys Ala Leu  
 305 310 315 320  
 Tyr Ser Ser Ile Lys Asn Glu Lys Leu Gln Trp Ala Ile Asp Glu Glu  
 325 330 335  
 Glu Leu Arg Arg Ser Leu Ser Glu Leu Ala Asp Pro Asn Pro Lys Val  
 340 345 350  
 Ile Lys Arg Ile Ser Gly Gly Ser Gly Ser Gly Ser Ser Pro Phe Leu  
 355 360 365  
 Asp Leu Thr Pro Glu Pro Gly Ala Ala Val Tyr Lys His Gly Ala Leu  
 370 375 380  
 Val Arg Lys Val His Ala Asp Pro Asp Cys Arg Lys Thr Pro Arg Gly  
 385 390 395 400  
 Lys Arg Gly Trp Lys Ser Phe His Gly Ile Leu Lys Gly Met Ile Leu  
 405 410 415  
 Tyr Leu Gln Lys Glu Glu Tyr Lys Pro Gly Lys Ala Leu Ser Glu Thr  
 420 425 430  
 Glu Leu Lys Asn Ala Ile Ser Ile His His Ala Leu Ala Thr Arg Ala  
 435 440 445  
 Ser Asp Tyr Ser Lys Arg Pro His Val Phe Tyr Leu Arg Thr Ala Asp  
 450 455 460  
 Trp Arg Val Phe Leu Phe Gln Ala Pro Ser Leu Glu Gln Met Gln Ser  
 465 470 475 480  
 Trp Ile Thr Arg Ile Asn Val Val Ala Ala Met Phe Ser Ala Pro Pro  
 485 490 495  
 Phe Pro Ala Ala Val Ser Ser Gln Lys Lys Phe Ser Arg Pro Leu Leu  
 500 505 510  
 Pro Ser Ala Ala Thr Arg Leu Ser Gln Glu Glu Gln Val Arg Thr His  
 515 520 525  
 Glu Ala Lys Leu Lys Ala Met Ala Ser Glu Leu Arg Glu His Arg Ala  
 530 535 540  
 Ala Gln Leu Gly Lys Lys Gly Arg Gly Lys Lys Ala Glu Glu Gln Arg  
 545 550 555 560  
 Gln Lys Glu Ala Tyr Leu Glu Phe Glu Lys Ser Arg Tyr Ser Thr Tyr  
 565 570 575  
 Ala Ala Leu Leu Arg Val Lys Leu Lys Ala Gly Ser Glu Glu Leu Asp  
 580 585 590  
 Ala Val Glu Ala Ala Leu Ala Gln Ala Gly Ser Thr Glu Asp Gly Leu  
 595 600 605  
 Pro Pro Ser His Ser Ser Pro Ser Leu Gln Pro Lys Pro Ser Ser Gln  
 610 615 620

Pro Arg Ala Gln Arg His Ser Ser Glu Pro Arg Pro Gly Ala Gly Ser  
 625 630 635 640  
 Gly Arg Arg Lys Pro \*  
 645

<210> 1520  
 <211> 524  
 <212> PRT  
 <213> Homo sapiens

<400> 1520  
 Met Ser Phe Pro His Phe Gly His Pro Tyr Arg Gly Ala Ser Gln Phe  
 1 5 10 15  
 Leu Ala Ser Ala Ser Ser Ser Thr Thr Cys Cys Glu Ser Thr Gln Arg  
 20 25 30  
 Ser Val Ser Asp Val Ala Ser Gly Ser Thr Pro Ala Pro Ala Leu Cys  
 35 40 45  
 Cys Ala Pro Tyr Asp Ser Arg Leu Leu Gly Ser Ala Arg Pro Glu Leu  
 50 55 60  
 Gly Ala Ala Leu Gly Ile Tyr Gly Ala Pro Tyr Ala Ala Ala Ala Ala  
 65 70 75 80  
 Ala Gln Ser Tyr Pro Gly Tyr Leu Pro Tyr Ser Pro Glu Pro Pro Ser  
 85 90 95  
 Leu Tyr Gly Ala Leu Asn Pro Gln Tyr Glu Phe Lys Glu Ala Ala Gly  
 100 105 110  
 Ser Phe Thr Ser Ser Leu Ala Gln Pro Gly Ala Tyr Tyr Pro Tyr Glu  
 115 120 125  
 Arg Thr Leu Gly Gln Tyr Gln Tyr Glu Arg Tyr Gly Ala Val Glu Leu  
 130 135 140  
 Ser Gly Ala Gly Arg Arg Lys Asn Ala Thr Arg Glu Thr Thr Ser Thr  
 145 150 155 160  
 Leu Lys Ala Trp Leu Asn Glu His Arg Lys Asn Pro Tyr Pro Thr Lys  
 165 170 175  
 Gly Glu Lys Ile Met Leu Ala Ile Ile Thr Lys Met Thr Leu Thr Gln  
 180 185 190  
 Val Ser Thr Trp Phe Ala Asn Ala Arg Arg Arg Leu Lys Lys Glu Asn  
 195 200 205  
 Lys Met Thr Trp Ala Pro Lys Asn Lys Gly Gly Glu Glu Arg Lys Ala  
 210 215 220  
 Glu Gly Gly Glu Glu Asp Ser Leu Gly Cys Leu Thr Ala Asp Thr Lys  
 225 230 235 240  
 Glu Val Thr Ala Ser Gln Glu Ala Arg Gly Leu Arg Leu Ser Asp Leu  
 245 250 255  
 Glu Asp Leu Glu Glu Glu Glu Glu Glu Glu Ala Glu Asp Glu  
 260 265 270  
 Glu Val Val Ala Thr Ala Gly Asp Arg Leu Thr Glu Phe Arg Lys Gly  
 275 280 285  
 Ala Gln Ser Leu Pro Gly Pro Cys Ala Ala Ala Arg Glu Gly Arg Leu  
 290 295 300  
 Glu Arg Arg Glu Cys Gly Leu Ala Ala Pro Arg Phe Ser Phe Asn Asp  
 305 310 315 320  
 Pro Ser Gly Ser Glu Glu Ala Asp Phe Leu Ser Ala Glu Thr Gly Ser  
 325 330 335  
 Pro Arg Leu Thr Met His Tyr Pro Cys Leu Glu Lys Pro Arg Ile Trp  
 340 345 350  
 Ser Leu Ala His Thr Ala Thr Ala Ser Ala Val Glu Gly Ala Pro Pro  
 355 360 365  
 Ala Arg Pro Arg Pro Arg Ser Pro Glu Cys Arg Met Ile Pro Gly Gln  
 370 375 380  
 Pro Pro Ala Ser Ala Arg Arg Leu Ser Val Pro Arg Asp Ser Ala Cys  
 385 390 395 400

Asp Glu Ser Ser Cys Ile Pro Lys Ala Phe Gly Asn Pro Lys Phe Ala  
 405 410 415  
 Leu Gln Gly Leu Pro Leu Asn Cys Ala Pro Cys Pro Arg Arg Ser Glu  
 420 425 430  
 Pro Val Val Gln Cys Gln Tyr Pro Ser Gly Ala Glu Gly Ser Gly Pro  
 435 440 445  
 Pro Ala Ala Leu Gly Val Ser Met Gln Lys Thr Pro Thr Tyr Arg Pro  
 450 455 460  
 Ala Arg Gln Leu His Thr Leu Cys His Ser Ser Leu Pro Arg Gly Asp  
 465 470 475 480  
 Ser Leu Val Pro Ala Val Leu Leu Arg Glu Phe Thr Arg Val Gly Gln  
 485 490 495  
 Ala Pro Gly Leu Leu Glu Lys Ser Lys Thr Val Gly Gln Thr His Thr  
 500 505 510  
 Thr Asp Leu Arg Gly Pro Ser Ser Arg Pro Arg \*  
 515 520 523

<210> 1521  
 <211> 439  
 <212> PRT  
 <213> Homo sapiens

<400> 1521  
 Met Val Arg Thr Asp Gly His Thr Leu Ser Glu Lys Arg Asn Tyr Gln  
 1 5 10 15  
 Val Thr Asn Ser Met Phe Gly Ala Ser Arg Lys Lys Phe Val Glu Gly  
 20 25 30  
 Val Asp Ser Asp Tyr His Asp Glu Asn Met Tyr Tyr Ser Gln Ser Ser  
 35 40 45  
 Met Phe Pro His Arg Ser Glu Lys Asp Met Leu Ala Ser Pro Ser Thr  
 50 55 60  
 Ser Gly Gln Leu Ser Gln Phe Gly Ala Ser Leu Tyr Gly Gln Gln Ser  
 65 70 75 80  
 Ala Leu Gly Leu Pro Met Arg Gly Met Ser Asn Asn Thr Pro Gln Leu  
 85 90 95  
 Asn Arg Ser Leu Ser Gln Gly Thr Gln Leu Pro Ser His Val Thr Pro  
 100 105 110  
 Thr Thr Gly Val Pro Thr Met Ser Leu His Thr Pro Pro Ser Pro Ser  
 115 120 125  
 Arg Gly Ile Leu Pro Met Asn Pro Arg Asn Met Met Asn His Ser Gln  
 130 135 140  
 Val Gly Gln Gly Ile Gly Ile Pro Ser Arg Thr Asn Ser Met Ser Ser  
 145 150 155 160  
 Ser Gly Leu Gly Ser Pro Asn Arg Ser Ser Pro Ser Ile Ile Cys Met  
 165 170 175  
 Pro Lys Gln Gln Pro Ser Arg Gln Pro Phe Thr Val Asn Ser Met Ser  
 180 185 190  
 Gly Phe Gly Met Asn Arg Asn Gln Ala Phe Gly Met Asn Asn Ser Leu  
 195 200 205  
 Ser Ser Asn Ile Phe Asn Gly Thr Asp Gly Ser Glu Asn Val Thr Gly  
 210 215 220  
 Leu Asp Leu Ser Asp Phe Pro Ala Leu Ala Asp Arg Asn Arg Arg Glu  
 225 230 235 240  
 Gly Ser Gly Asn Pro Thr Pro Leu Ile Asn Pro Leu Ala Gly Arg Ala  
 245 250 255  
 Pro Tyr Val Gly Met Val Thr Lys Pro Ala Asn Glu Gln Ser Gln Asp  
 260 265 270  
 Phe Ser Ile His Asn Glu Asp Phe Pro Ala Leu Pro Gly Ser Ser Tyr  
 275 280 285  
 Lys Asp Pro Thr Ser Ser Asn Asp Asp Ser Lys Ser Asn Leu Asn Thr  
 290 295 300

Ser Gly Lys Thr Thr Ser Ser Thr Asp Gly Pro Lys Phe Pro Gly Asp  
 305 310 315 320  
 Lys Ser Ser Thr Thr Gln Asn Asn Asn Gln Gln Lys Lys Gly Ile Gln  
 325 330 335  
 Val Leu Pro Asp Gly Arg Val Thr Asn Ile Pro Gln Gly Met Val Thr  
 340 345 350  
 Asp Gln Phe Gly Met Ile Gly Leu Leu Thr Phe Ile Arg Ala Ala Glu  
 355 360 365  
 Thr Asp Pro Gly Met Val His Leu Ala Leu Gly Ser Asp Leu Thr Thr  
 370 375 380  
 Leu Gly Leu Asn Leu Asn Ser Pro Glu Asn Leu Tyr Pro Lys Phe Ala  
 385 390 395 400  
 Ser Pro Trp Ala Ser Ser Pro Cys Arg Pro Gln Asp Ile Asp Phe His  
 405 410 415  
 Val Pro Ser Glu Tyr Leu Thr Asn Ile His Ile Arg Asp Lys Leu Phe  
 420 425 430  
 Phe Phe Phe Ser Trp Leu Gln  
 435 439

<210> 1522  
 <211> 940  
 <212> PRT  
 <213> Homo sapiens

<400> 1522  
 Met Ala Thr Ser Gln Tyr Phe Asp Phe Ala Gln Gly Gly Gly Pro Gln  
 1 5 10 15  
 Tyr Ser Thr Gln Ala Pro Thr Leu Pro Leu Pro Thr Val Gly Ala Ser  
 20 25 30  
 Tyr Thr Gly Gln Pro Thr Pro Gly Met Asp Pro Ala Val Asn Pro Ala  
 35 40 45  
 Phe Pro Pro Ala Ala Pro Ala Gly Tyr Gly Gly Tyr Gln Pro His Ser  
 50 55 60  
 Gly Gln Asp Phe Ala Tyr Gly Ser Arg Pro Gln Glu Pro Val Pro Thr  
 65 70 75 80  
 Ala Thr Thr Met Ala Thr Tyr Gln Asp Ser Tyr Ser Tyr Gly Gln Ser  
 85 90 95  
 Ala Ala Ala Arg Ser Tyr Glu Asp Arg Pro Tyr Phe Gln Ser Ala Ala  
 100 105 110  
 Leu Gln Ser Gly Arg Met Thr Ala Ala Asp Ser Gly Gln Pro Gly Thr  
 115 120 125  
 Gln Glu Ala Cys Gly Gln Pro Ser Pro His Gly Ser His Ser His Ala  
 130 135 140  
 Gln Pro Pro Gln Gln Ala Pro Ile Val Glu Ser Gly Gln Pro Ala Ser  
 145 150 155 160  
 Thr Leu Ser Ser Gly Tyr Thr Tyr Pro Thr Ala Thr Gly Val Gln Pro  
 165 170 175  
 Glu Ser Ser Ala Ser Ile Val Thr Ser Tyr Pro Pro Pro Ser Tyr Asn  
 180 185 190  
 Pro Thr Cys Thr Ala Tyr Thr Ala Pro Ser Tyr Pro Asn Tyr Asp Ala  
 195 200 205  
 Ser Val Tyr Ser Ala Ala Ser Pro Phe Tyr Pro Pro Ala Gln Pro Pro  
 210 215 220  
 Pro Pro Pro Gly Pro Pro Gln Gln Leu Pro Pro Pro Pro Ala Pro Ala  
 225 230 235 240  
 Gly Ser Gly Ser Ser Pro Arg Ala Asp Ser Lys Pro Pro Leu Pro Ser  
 245 250 255  
 Lys Leu Pro Arg Pro Lys Ala Gly Pro Arg Gln Leu Gln Leu His Tyr  
 260 265 270  
 Cys Asp Ile Cys Lys Ile Ser Cys Ala Gly Pro Gln Thr Tyr Arg Glu  
 275 280 285

His Leu Gly Gly Gln Lys His Arg Lys Lys Glu Ala Ala Gln Lys Thr  
 290 295 300  
 Gly Val Gln Pro Asn Gly Ser Pro Arg Gly Val Gln Ala Gln Leu His  
 305 310 315 320  
 Cys Asp Leu Cys Ala Val Ser Cys Thr Gly Ala Asp Ala Tyr Ala Ala  
 325 330 335  
 His Ile Arg Gly Ser Lys His Gln Lys Val Phe Lys Leu His Ala Lys  
 340 345 350  
 Leu Gly Lys Pro Ile Pro Thr Leu Glu Pro Ala Leu Ala Thr Glu Ser  
 355 360 365  
 Pro Pro Gly Ala Glu Ala Lys Pro Thr Ser Pro Thr Gly Pro Ser Val  
 370 375 380  
 Cys Ala Ser Ser Arg Pro Ala Leu Ala Lys Arg Pro Val Ala Ser Lys  
 385 390 395 400  
 Ala Leu Cys Glu Gly Pro Pro Glu Pro Gln Ala Ala Gly Cys Arg Pro  
 405 410 415  
 Gln Trp Gly Lys Pro Ala Gln Pro Lys Leu Glu Gly Pro Gly Ala Pro  
 420 425 430  
 Thr Gln Gly Gly Ser Lys Glu Ala Pro Ala Gly Cys Ser Asp Ala Gln  
 435 440 445  
 Pro Val Gly Pro Glu Tyr Val Glu Glu Val Phe Ser Asp Glu Gly Arg  
 450 455 460  
 Val Leu Arg Phe His Cys Lys Leu Cys Glu Cys Ser Phe Asn Asp Leu  
 465 470 475 480  
 Asn Ala Lys Asp Leu His Val Arg Gly Arg His Arg Leu Gln Tyr  
 485 490 495  
 Arg Lys Lys Val Asn Pro Asp Leu Pro Ile Ala Thr Glu Pro Ser Ser  
 500 505 510  
 Arg Ala Arg Lys Val Leu Glu Glu Arg Met Arg Lys Gln Arg His Leu  
 515 520 525  
 Ala Glu Glu Arg Leu Glu Gln Leu Arg Arg Trp His Ala Glu Arg Arg  
 530 535 540  
 Arg Leu Glu Glu Glu Pro Pro Gln Asp Val Pro Pro His Ala Pro Pro  
 545 550 555 560  
 Asp Trp Ala Gln Pro Leu Leu Met Gly Arg Pro Glu Ser Pro Ala Ser  
 565 570 575  
 Ala Pro Leu Gln Pro Gly Arg Arg Pro Ala Ser Ser Asp Asp Arg His  
 580 585 590  
 Val Met Cys Lys His Ala Thr Ile Tyr Pro Thr Glu Gln Glu Leu Leu  
 595 600 605  
 Ala Val Gln Arg Ala Val Ser His Ala Glu Arg Ala Leu Lys Leu Val  
 610 615 620  
 Ser Asp Thr Leu Ala Glu Asp Arg Gly Arg Arg Glu Glu Glu Gly  
 625 630 635 640  
 Asp Lys Arg Ser Ser Val Ala Pro Gln Thr Arg Val Leu Lys Gly Val  
 645 650 655  
 Met Arg Val Gly Ile Leu Ala Lys Gly Leu Leu Leu Arg Gly Asp Arg  
 660 665 670  
 Asn Val Arg Leu Ala Leu Leu Cys Ser Glu Lys Pro Thr His Ser Leu  
 675 680 685  
 Leu Arg Arg Ile Ala Gln Gln Leu Pro Arg Gln Leu Gln Met Val Thr  
 690 695 700  
 Glu Asp Glu Tyr Glu Val Ser Ser Asp Pro Glu Ala Asn Ile Val Ile  
 705 710 715 720  
 Ser Ser Cys Glu Glu Pro Arg Met Gln Val Thr Ile Ser Val Thr Ser  
 725 730 735  
 Pro Leu Met Arg Glu Asp Pro Ser Thr Asp Pro Gly Val Glu Glu Pro  
 740 745 750  
 Gln Ala Asp Ala Gly Asp Val Leu Ser Pro Lys Lys Cys Leu Glu Ser  
 755 760 765  
 Leu Ala Ala Leu Arg His Ala Arg Trp Phe Gln Ala Arg Ala Ser Gly  
 770 775 780  
 Leu Gln Pro Cys Val Ile Val Ile Arg Val Leu Arg Asp Leu Cys Arg  
 785 790 795 800

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Arg Val Pro Thr Trp Gly Ala Leu Pro Ala Trp Ala Met Glu Leu Leu
      805      810      815
Val Glu Lys Ala Val Ser Ser Ala Ala Gly Pro Leu Gly Pro Gly Asp
      820      825      830
Ala Val Arg Arg Val Leu Glu Cys Val Ala Thr Gly Thr Leu Leu Thr
      835      840      845
Asp Gly Pro Gly Leu Gln Asp Pro Cys Glu Arg Asp Gln Thr Asp Ala
      850      855      860
Leu Glu Pro Met Thr Leu Gln Glu Arg Glu Asp Val Thr Ala Ser Ala
      865      870      875      880
Gln His Ala Leu Arg Met Leu Ala Phe Arg Gln Thr His Lys Val Leu
      885      890      895
Gly Met Asp Leu Leu Pro Pro Arg His Arg Leu Gly Ala Arg Phe Arg
      900      905      910
Lys Arg Gln Arg Gly Pro Gly Glu Gly Glu Gly Ala Gly Glu Lys
      915      920      925
Lys Arg Gly Arg Arg Gly Gly Glu Gly Leu Val *
      930      935      939

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<210> 1523
<211> 419
<212> PRT
<213> Homo sapiens

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<400> 1523
Met Ala Gly Ser Leu Pro Pro Cys Val Val Asp Cys Gly Thr Gly Tyr
  1      5      10      15
Thr Lys Leu Gly Tyr Ala Gly Asn Thr Glu Pro Gln Phe Ile Ile Pro
      20      25      30
Ser Cys Ile Ala Ile Arg Glu Ser Ala Lys Val Val Asp Gln Ala Gln
      35      40      45
Arg Arg Val Leu Arg Gly Val Asp Asp Leu Asp Phe Phe Ile Gly Asp
      50      55      60
Glu Ala Ile Asp Lys Pro Thr Tyr Ala Thr Lys Trp Pro Ile Arg His
      65      70      75      80
Gly Ile Ile Glu Asp Trp Asp Leu Met Glu Arg Phe Met Glu Gln Val
      85      90      95
Val Phe Lys Tyr Leu Arg Ala Glu Pro Glu Asp His Tyr Phe Leu Met
      100      105      110
Thr Glu Pro Pro Leu Asn Thr Pro Glu Asn Arg Glu Tyr Leu Ala Glu
      115      120      125
Ile Met Phe Glu Ser Phe Asn Val Pro Gly Leu Tyr Ile Ala Val Gln
      130      135      140
Ala Val Leu Ala Leu Ala Ala Ser Trp Thr Ser Arg Gln Val Gly Glu
      145      150      155      160
Arg Thr Leu Thr Gly Ile Val Ile Asp Ser Gly Asp Gly Val Thr His
      165      170      175
Val Ile Pro Val Ala Glu Gly Tyr Val Ile Gly Ser Cys Ile Lys His
      180      185      190
Ile Pro Ile Ala Gly Arg Asp Ile Thr Tyr Phe Ile Gln Gln Leu Leu
      195      200      205
Arg Glu Arg Glu Val Gly Ile Pro Pro Glu Gln Ser Leu Glu Thr Ala
      210      215      220
Lys Ala Ile Lys Glu Lys Tyr Cys Tyr Ile Cys Pro Asp Ile Val Lys
      225      230      235      240
Glu Phe Ala Lys Tyr Asp Val Asp Pro Arg Lys Trp Ile Lys Gln Tyr
      245      250      255
Thr Gly Ile Asn Ala Ile Asn Gln Lys Lys Phe Val Ile Asp Val Gly
      260      265      270
Tyr Glu Arg Phe Leu Gly Pro Glu Ile Phe Phe His Pro Glu Phe Ala
      275      280      285

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Asn Pro Asp Phe Met Glu Ser Ile Ser Asp Val Val Asp Glu Val Ile
 290                295                300
Gln Asn Cys Pro Ile Asp Val Arg Arg Pro Leu Tyr Lys Asn Val Val
 305                310                315                320
Leu Ser Gly Gly Ser Thr Met Phe Arg Asp Phe Gly Arg Arg Leu Gln
                325                330                335
Arg Asp Leu Lys Arg Val Val Asp Ala Arg Leu Arg Leu Ser Glu Glu
                340                345                350
Leu Ser Gly Gly Arg Ile Lys Pro Lys Pro Val Glu Val Gln Val Val
                355                360                365
Thr His His Met Gln Arg Tyr Ala Val Trp Phe Gly Gly Ser Met Leu
 370                375                380
Ala Ser Thr Pro Glu Phe Phe Gln Val Cys His Thr Lys Lys Asp Tyr
 385                390                395                400
Glu Glu Tyr Gly Pro Ser Ile Cys Arg His Asn Pro Val Phe Gly Val
                405                410                415
Met Ser *
 418

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<210> 1524
<211> 653
<212> PRT
<213> Homo sapiens

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<400> 1524
Met Phe Gln Asp Ala Leu Gly Gly Arg Ser Arg Gly Ser Arg Glu Glu
 1                5                10                15
Ser Pro Ala Pro Ser Arg Ala Pro Ala Ser Ala Ser Leu Trp Arg Arg
                20                25                30
Leu Val Val Val Glu Ala Lys Met Ala Ala Gln Ala Ala Ala Ala
 35                40                45
Gln Ala Ala Ala Ala Gln Ala Ala Gln Ala Glu Ala Ala Asp Ser Trp
 50                55                60
Tyr Leu Ala Leu Leu Gly Phe Ala Glu His Phe Arg Thr Ser Ser Pro
 65                70                75                80
Pro Lys Ile Arg Leu Cys Val His Cys Leu Gln Ala Val Phe Pro Phe
                85                90                95
Lys Pro Pro Gln Arg Ile Glu Ala Arg Thr His Leu Gln Leu Gly Ser
                100                105                110
Val Leu Tyr His His Thr Lys Asn Ser Glu Gln Ala Arg Ser His Leu
 115                120                125
Glu Lys Ala Trp Leu Ile Ser Gln Gln Ile Pro Gln Phe Glu Asp Val
 130                135                140
Lys Phe Glu Ala Ala Ser Leu Leu Ser Glu Leu Tyr Cys Gln Glu Asn
 145                150                155                160
Ser Val Asp Ala Ala Lys Pro Leu Leu Arg Lys Ala Ile Gln Ile Ser
                165                170                175
Gln Gln Thr Pro Tyr Trp His Cys Arg Leu Leu Phe Gln Leu Ala Gln
 180                185                190
Leu His Thr Leu Glu Lys Asp Leu Val Ser Ala Cys Asp Leu Leu Gly
 195                200                205
Val Gly Ala Glu Tyr Ala Arg Val Val Gly Ser Glu Tyr Thr Arg Ala
 210                215                220
Leu Phe Leu Leu Ser Lys Gly Met Leu Leu Leu Met Glu Arg Lys Leu
 225                230                235                240
Gln Glu Val His Pro Leu Leu Thr Leu Cys Gly Gln Ile Val Glu Asn
                245                250                255
Trp Gln Gly Asn Pro Ile Gln Lys Glu Ser Leu Arg Val Phe Phe Leu
 260                265                270
Val Leu Gln Val Thr His Tyr Leu Asp Ala Gly Gln Val Lys Ser Val
 275                280                285

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Lys Pro Cys Leu Lys Gln Leu Gln Gln Cys Ile Gln Thr Ile Ser Thr  
 290 295 300  
 Leu His Asp Asp Glu Ile Leu Pro Ser Asn Pro Ala Asp Leu Phe His  
 305 310 315 320  
 Trp Leu Pro Lys Glu His Met Cys Val Leu Val Tyr Leu Val Thr Val  
 325 330 335  
 Met His Ser Met Gln Ala Gly Tyr Leu Glu Lys Ala Gln Lys Tyr Thr  
 340 345 350  
 Asp Lys Ala Leu Met Gln Leu Glu Lys Leu Lys Met Leu Asp Cys Ser  
 355 360 365  
 Pro Ile Leu Ser Ser Phe Gln Val Ile Leu Leu Glu His Ile Ile Met  
 370 375 380  
 Cys Arg Leu Val Thr Gly His Lys Ala Thr Ala Leu Gln Glu Ile Ser  
 385 390 395 400  
 Gln Val Cys Gln Leu Cys Gln Gln Ser Pro Arg Leu Phe Ser Asn His  
 405 410 415  
 Ala Ala Gln Leu His Thr Leu Leu Gly Leu Tyr Cys Val Ser Val Asn  
 420 425 430  
 Cys Met Asp Asn Ala Glu Ala Gln Phe Thr Thr Ala Leu Arg Leu Thr  
 435 440 445  
 Asn His Gln Glu Leu Trp Ala Phe Ile Val Thr Asn Leu Ala Ser Val  
 450 455 460  
 Tyr Ile Arg Glu Gly Asn Arg His Gln Glu Val Leu Tyr Ser Leu Leu  
 465 470 475 480  
 Glu Arg Ile Asn Pro Asp His Ser Phe Pro Val Ser Ser His Cys Leu  
 485 490 495  
 Arg Ala Ala Ala Phe Tyr Val Arg Gly Leu Phe Ser Phe Phe Gln Gly  
 500 505 510  
 Arg Tyr Asn Glu Ala Lys Arg Phe Leu Arg Glu Thr Leu Lys Met Ser  
 515 520 525  
 Asn Ala Glu Asp Leu Asn Arg Leu Thr Ala Cys Ser Leu Val Leu Leu  
 530 535 540  
 Gly His Ile Phe Tyr Val Leu Gly Asn His Arg Glu Ser Asn Asn Met  
 545 550 555 560  
 Val Val Pro Ala Met Gln Leu Ala Ser Lys Ile Pro Asp Met Ser Val  
 565 570 575  
 Gln Leu Trp Ser Ser Ala Leu Leu Arg Asp Leu Asn Lys Ala Cys Gly  
 580 585 590  
 Asn Ala Met Asp Ala His Glu Ala Ala Gln Met His Gln Asn Phe Ser  
 595 600 605  
 Gln Gln Leu Leu Gln Asp His Ile Glu Ala Cys Ser Leu Pro Glu His  
 610 615 620  
 Asn Leu Ile Thr Trp Thr Asp Gly Pro Pro Pro Val Gln Phe Gln Ala  
 625 630 635 640  
 Gln Asn Gly Pro Asn Thr Ser Leu Ala Ser Leu Leu \*  
 645 650 652

&lt;210&gt; 1525

&lt;211&gt; 598

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1525

Met Phe Gln Asp Ala Leu Gly Gly Arg Ser Arg Gly Ser Arg Glu Glu  
 1 5 10 15  
 Ser Pro Ala Pro Ser Arg Ala Pro Ala Ser Ala Ser Leu Trp Arg Arg  
 20 25 30  
 Leu Val Val Val Glu Ala Lys Met Ala Ala Gln Ala Ala Ala Ala  
 35 40 45  
 Gln Ala Ala Ala Ala Gln Ala Ala Gln Ala Glu Ala Ala Asp Ser Trp  
 50 55 60

Tyr Leu Ala Leu Leu Gly Phe Ala Glu His Phe Arg Thr Ser Ser Pro  
 65 70 75 80  
 Pro Lys Ile Arg Leu Cys Val His Cys Leu Gln Ala Val Phe Pro Phe  
 85 90 95  
 Lys Pro Pro Gln Arg Ile Glu Ala Arg Thr His Leu Gln Leu Gly Ser  
 100 105 110  
 Val Leu Tyr His His Thr Lys Asn Ser Glu Gln Ala Arg Ser His Leu  
 115 120 125  
 Glu Lys Ala Trp Leu Ile Ser Gln Gln Ile Pro Gln Phe Glu Asp Val  
 130 135 140  
 Lys Phe Glu Ala Ala Ser Leu Leu Ser Glu Leu Tyr Cys Gln Glu Asn  
 145 150 155 160  
 Ser Val Asp Ala Ala Lys Pro Leu Leu Arg Lys Ala Ile Gln Ile Ser  
 165 170 175  
 Gln Gln Thr Pro Tyr Trp His Cys Arg Leu Leu Phe Gln Leu Ala Gln  
 180 185 190  
 Leu His Thr Leu Glu Lys Asp Leu Val Ser Ala Cys Asp Leu Leu Gly  
 195 200 205  
 Val Gly Ala Glu Tyr Ala Arg Val Val Gly Ser Glu Tyr Thr Arg Ala  
 210 215 220  
 Leu Phe Leu Leu Ser Lys Gly Met Leu Leu Leu Met Glu Arg Lys Leu  
 225 230 235 240  
 Gln Glu Val His Pro Leu Leu Thr Leu Cys Gly Gln Ile Val Glu Asn  
 245 250 255  
 Trp Gln Gly Asn Pro Ile Gln Lys Glu Ser Leu Arg Val Phe Phe Leu  
 260 265 270  
 Val Leu Gln Val Thr His Tyr Leu Asp Ala Gly Gln Val Lys Ser Val  
 275 280 285  
 Lys Pro Cys Leu Lys Gln Leu Gln Gln Cys Ile Gln Thr Ile Ser Thr  
 290 295 300  
 Leu His Asp Asp Glu Ile Leu Pro Ser Asn Pro Ala Asp Leu Phe His  
 305 310 315 320  
 Trp Leu Pro Lys Glu His Met Cys Val Leu Val Tyr Leu Val Thr Val  
 325 330 335  
 Met His Ser Met Gln Ala Gly Tyr Leu Glu Lys Ala Gln Lys Tyr Thr  
 340 345 350  
 Asp Lys Ala Leu Met Gln Leu Glu Lys Leu Lys Met Leu Asp Cys Ser  
 355 360 365  
 Pro Ile Leu Ser Ser Phe Gln Val Ile Leu Leu Glu His Ile Ile Met  
 370 375 380  
 Cys Arg Leu Val Thr Gly His Lys Ala Thr Ala Leu Gln Glu Gly Leu  
 385 390 395 400  
 Tyr Cys Val Ser Val Asn Cys Met Asp Asn Ala Glu Ala Gln Phe Thr  
 405 410 415  
 Thr Ala Leu Arg Leu Tyr Ser Leu Leu Glu Arg Ile Asn Pro Asp His  
 420 425 430  
 Ser Phe Pro Val Ser Ser His Cys Leu Arg Ala Ala Ala Phe Tyr Val  
 435 440 445  
 Arg Gly Leu Phe Ser Phe Phe Gln Gly Arg Tyr Asn Glu Ala Lys Arg  
 450 455 460  
 Phe Leu Arg Glu Thr Leu Lys Met Ser Asn Ala Glu Asp Leu Asn Arg  
 465 470 475 480  
 Leu Thr Ala Cys Ser Leu Val Leu Leu Gly His Ile Phe Tyr Val Leu  
 485 490 495  
 Gly Asn His Arg Glu Ser Asn Asn Met Val Val Pro Ala Met Gln Leu  
 500 505 510  
 Ala Ser Lys Ile Pro Asp Met Ser Val Gln Leu Trp Ser Ser Ala Leu  
 515 520 525  
 Leu Arg Asp Leu Asn Lys Ala Cys Gly Asn Ala Met Asp Ala His Glu  
 530 535 540  
 Ala Ala Gln Met His Gln Asn Phe Ser Gln Gln Leu Leu Gln Asp His  
 545 550 555 560  
 Ile Glu Ala Cys Ser Leu Pro Glu His Asn Leu Ile Thr Trp Thr Asp  
 565 570 575

Gly Pro Pro Pro Val Gln Phe Gln Ala Gln Asn Gly Pro Asn Thr Ser  
 580 585 590  
 Leu Ala Ser Leu Leu \*  
 595 597

<210> 1526  
 <211> 568  
 <212> PRT  
 <213> Homo sapiens

<400> 1526  
 Met Ala Ser His Val Asp Leu Leu Thr Glu Leu Gln Leu Leu Glu Lys  
 1 5 10 15  
 Val Pro Thr Leu Glu Arg Leu Arg Ala Ala Gln Lys Arg Arg Ala Gln  
 20 25 30  
 Gln Leu Lys Lys Trp Ala Gln Tyr Glu Gln Asp Leu Gln His Arg Lys  
 35 40 45  
 Arg Lys His Glu Arg Lys Arg Ser Thr Gly Gly Arg Arg Lys Lys Val  
 50 55 60  
 Ser Phe Glu Ala Ser Val Ala Leu Leu Glu Ala Ser Leu Arg Asn Asp  
 65 70 75 80  
 Ala Glu Glu Val Arg Tyr Phe Leu Lys Asn Lys Val Ser Pro Asp Leu  
 85 90 95  
 Cys Asn Glu Asp Gly Leu Thr Ala Leu His Gln Cys Cys Ile Asp Asn  
 100 105 110  
 Phe Glu Glu Ile Val Lys Leu Leu Ser His Gly Ala Asn Val Asn  
 115 120 125  
 Ala Lys Asp Asn Glu Leu Trp Thr Pro Leu His Ala Ala Ala Thr Cys  
 130 135 140  
 Gly His Ile Asn Leu Val Lys Ile Leu Val Gln Tyr Gly Ala Asp Leu  
 145 150 155 160  
 Leu Ala Val Asn Ser Asp Gly Asn Met Pro Tyr Asp Leu Cys Glu Asp  
 165 170 175  
 Glu Pro Thr Leu Asp Val Ile Glu Thr Cys Met Ala Tyr Gln Gly Ile  
 180 185 190  
 Thr Gln Glu Lys Ile Asn Glu Met Arg Val Ala Pro Glu Gln Gln Met  
 195 200 205  
 Ile Ala Asp Ile His Cys Met Ile Ala Ala Gly Gln Asp Leu Asp Trp  
 210 215 220  
 Ile Asp Ala Gln Gly Ala Thr Leu Leu His Ile Ala Gly Ala Asn Gly  
 225 230 235 240  
 Tyr Leu Arg Ala Ala Glu Leu Leu Leu Asp His Gly Val Arg Val Asp  
 245 250 255  
 Val Lys Asp Trp Asp Gly Trp Glu Pro Leu His Ala Ala Ala Phe Trp  
 260 265 270  
 Gly Gln Met Gln Met Ala Glu Leu Leu Val Ser His Gly Ala Ser Leu  
 275 280 285  
 Ser Ala Arg Thr Ser Met Asp Glu Met Pro Ile Asp Leu Cys Glu Glu  
 290 295 300  
 Glu Glu Phe Lys Val Leu Leu Leu Glu Leu Lys His Lys His Asp Val  
 305 310 315 320  
 Ile Met Lys Ser Gln Leu Arg His Lys Ser Ser Leu Ser Arg Arg Thr  
 325 330 335  
 Ser Ser Ala Gly Ser Arg Gly Lys Val Val Arg Arg Ala Ser Leu Ser  
 340 345 350  
 Asp Arg Thr Asn Leu Tyr Arg Lys Glu Tyr Glu Gly Glu Ala Ile Leu  
 355 360 365  
 Trp Gln Arg Ser Ala Ala Glu Asp Gln Arg Thr Ser Thr Tyr Asn Gly  
 370 375 380  
 Asp Ile Arg Glu Thr Arg Thr Asp Gln Glu Asn Lys Asp Pro Asn Pro  
 385 390 395 400

Arg Leu Glu Lys Pro Val Leu Leu Ser Glu Phe Pro Thr Lys Ile Pro  
 405 410 415  
 Arg Gly Glu Leu Asp Met Pro Val Glu Asn Gly Leu Arg Ala Pro Val  
 420 425 430  
 Ser Ala Tyr Gln Tyr Ala Leu Ala Asn Gly Asp Val Trp Lys Val His  
 435 440 445  
 Glu Val Pro Asp Tyr Ser Met Ala Tyr Gly Asn Pro Gly Val Ala Asp  
 450 455 460  
 Ala Thr Pro Pro Trp Ser Ser Tyr Lys Glu Gln Ser Pro Gln Thr Leu  
 465 470 475 480  
 Leu Glu Leu Lys Arg Gln Arg Ala Ala Lys Leu Leu Ser His Pro  
 485 490 495  
 Phe Leu Ser Thr His Leu Gly Ser Ser Met Ala Arg Thr Gly Glu Ser  
 500 505 510  
 Ser Ser Glu Gly Lys Ala Pro Leu Ile Gly Gly Arg Thr Ser Pro Tyr  
 515 520 525  
 Ser Ser Asn Gly Thr Ser Val Tyr Tyr Thr Val Thr Ser Gly Asp Pro  
 530 535 540  
 Pro Leu Leu Lys Phe Lys Ala Pro Ile Glu Glu Met Glu Glu Lys Val  
 545 550 555 560  
 His Gly Cys Cys Arg Ile Ser \*  
 565 567

<210> 1527  
 <211> 248  
 <212> PRT  
 <213> Homo sapiens

<400> 1527  
 Met Ala Asp Thr Thr Pro Asn Gly Pro Gln Gly Ala Gly Ala Val Gln  
 1 5 10 15  
 Phe Met Met Thr Asn Lys Leu Asp Thr Ala Met Trp Leu Ser Arg Leu  
 20 25 30  
 Phe Thr Val Tyr Cys Ser Ala Leu Phe Val Leu Pro Leu Leu Gly Leu  
 35 40 45  
 His Glu Ala Ala Ser Phe Tyr Gln Arg Ala Leu Leu Ala Asn Ala Leu  
 50 55 60  
 Thr Ser Ala Leu Arg Leu His Gln Arg Leu Pro His Phe Gln Leu Ser  
 65 70 75 80  
 Arg Ala Phe Leu Ala Gln Ala Leu Leu Glu Asp Ser Cys His Tyr Leu  
 85 90 95  
 Leu Tyr Ser Leu Ile Phe Val Asn Ser Tyr Pro Val Thr Met Ser Ile  
 100 105 110  
 Phe Pro Val Leu Leu Phe Ser Leu Leu His Ala Ala Thr Tyr Thr Lys  
 115 120 125  
 Lys Val Leu Asp Ala Arg Gly Ser Asn Ser Leu Pro Leu Leu Arg Ser  
 130 135 140  
 Val Leu Asp Lys Leu Ser Ala Asn Gln Gln Asn Ile Leu Lys Phe Ile  
 145 150 155 160  
 Ala Cys Asn Glu Ile Phe Leu Met Pro Ala Thr Val Phe Met Leu Phe  
 165 170 175  
 Ser Gly Gln Gly Ser Leu Leu Gln Pro Phe Ile Tyr Tyr Arg Phe Leu  
 180 185 190  
 Thr Leu Arg Tyr Ser Ser Arg Arg Asn Pro Tyr Cys Arg Thr Leu Phe  
 195 200 205  
 Asn Glu Leu Arg Ile Val Val Glu His Ile Ile Met Lys Pro Ala Cys  
 210 215 220  
 Pro Leu Phe Val Arg Arg Leu Cys Leu Gln Ser Ile Ala Phe Ile Ser  
 225 230 235 240  
 Arg Leu Ala Pro Thr Val Pro \*  
 245 247

<210> 1528  
 <211> 1000  
 <212> PRT  
 <213> Homo sapiens

<400> 1528  
 Met Gly Trp Gly Asp Gly Gly Ser Ser Ala Val Gly Arg His Pro Gly  
 1 5 10 15  
 Leu Leu Leu Ala Ala Pro Pro Trp Pro Ala Pro Pro Arg Pro Arg Lys  
 20 25 30  
 Lys Gly Arg Val Ala Met Thr Ser Trp Gly Pro Gly Arg Pro Ser Arg  
 35 40 45  
 Thr Arg Glu Met Glu Glu Lys Glu Ile Leu Arg Arg Gln Ile Arg Leu  
 50 55 60  
 Leu Gln Gly Leu Ile Asp Asp Tyr Lys Thr Leu His Gly Asn Ala Pro  
 65 70 75 80  
 Ala Pro Gly Thr Pro Ala Ala Ser Gly Trp Gln Pro Pro Thr Tyr His  
 85 90 95  
 Ser Gly Arg Ala Phe Ser Ala Arg Tyr Pro Arg Pro Ser Arg Arg Gly  
 100 105 110  
 Tyr Ser Ser His His Gly Pro Ser Trp Arg Lys Lys Tyr Ser Leu Val  
 115 120 125  
 Asn Arg Pro Pro Gly Pro Ser Asp Pro Pro Ala Asp His Ala Val Arg  
 130 135 140  
 Pro Leu His Gly Ala Arg Gly Gly Gln Pro Pro Val Pro Gln Gln His  
 145 150 155 160  
 Val Leu Glu Arg Gln Val Gln Leu Ser Gln Gly Gln Asn Val Val Ile  
 165 170 175  
 Lys Val Lys Pro Pro Ser Lys Ser Gly Ser Ala Ser Ala Ser Gly Ala  
 180 185 190  
 Gln Arg Gly Ser Leu Glu Glu Tyr Glu Asp Thr Pro Trp Ser Asp Gln  
 195 200 205  
 Arg Pro Arg Glu Gly Glu Gly Glu Pro Pro Arg Gly Gln Leu Gln Pro  
 210 215 220  
 Ser Arg Pro Thr Arg Ala Arg Gly Thr Cys Ser Val Glu Asp Pro Leu  
 225 230 235 240  
 Leu Val Cys Gln Lys Glu Pro Gly Lys Pro Arg Met Val Lys Ser Val  
 245 250 255  
 Gly Ser Val Gly Asp Ser Pro Trp Glu Pro Arg Arg Thr Val Ser Glu  
 260 265 270  
 Ser Val Ile Ala Val Lys Ala Ser Phe Pro Ser Ser Ala Leu Pro Pro  
 275 280 285  
 Arg Thr Gly Val Ala Leu Gly Arg Lys Leu Gly Ser His Ser Val Ala  
 290 295 300  
 Ser Cys Ala Pro Gln Leu Leu Gly Asp Arg Arg Val Asp Ala Gly His  
 305 310 315 320  
 Thr Asp Gln Pro Val Pro Ser Gly Ser Val Gly Gly Pro Ala Arg Pro  
 325 330 335  
 Ala Ser Gly Pro Arg Gln Ala Arg Glu Ala Ser Leu Val Val Thr Cys  
 340 345 350  
 Arg Thr Asn Lys Phe Arg Lys Asn Tyr Lys Trp Val Ala Ala Ser  
 355 360 365  
 Ser Lys Ser Pro Arg Val Ala Arg Arg Ala Leu Ser Pro Arg Val Ala  
 370 375 380  
 Ala Glu Asn Val Cys Lys Ala Ser Ala Gly Met Ala Asn Lys Val Glu  
 385 390 395 400  
 Lys Pro Gln Leu Ile Ala Asp Pro Glu Pro Lys Pro Arg Lys Pro Ala  
 405 410 415  
 Thr Ser Ser Lys Pro Gly Ser Ala Pro Ser Lys Tyr Lys Trp Lys Ala  
 420 425 430

Ser Ser Pro Ser Ala Ser Ser Ser Ser Ser Phe Arg Trp Gln Ser Glu  
 435 440 445  
 Ala Gly Ser Lys Asp His Ala Ser Gln Leu Ser Pro Val Leu Ser Arg  
 450 455 460  
 Ser Pro Ser Gly Asp Arg Pro Ala Val Gly His Ser Gly Leu Lys Pro  
 465 470 475 480  
 Leu Ser Gly Glu Thr Pro Leu Ser Ala Tyr Lys Val Lys Ser Arg Thr  
 485 490 495  
 Lys Ile Ile Arg Arg Arg Gly Ser Thr Ser Leu Pro Gly Asp Lys Lys  
 500 505 510  
 Ser Gly Thr Ser Pro Ala Ala Thr Ala Lys Ser His Leu Ser Leu Arg  
 515 520 525  
 Arg Arg Gln Ala Leu Arg Gly Lys Ser Ser Pro Val Leu Lys Lys Thr  
 530 535 540  
 Pro Asn Lys Gly Leu Val Gln Val Thr Lys His Arg Leu Cys Arg Leu  
 545 550 555 560  
 Pro Pro Ser Arg Ala His Leu Pro Thr Lys Glu Ala Ser Ser Leu His  
 565 570 575  
 Ala Val Arg Thr Ala Pro Thr Ser Lys Val Ile Lys Thr Arg Tyr Arg  
 580 585 590  
 Ile Val Lys Lys Thr Pro Ala Ser Pro Leu Ser Ala Pro Pro Phe Pro  
 595 600 605  
 Leu Ser Leu Pro Ser Trp Arg Ala Arg Arg Leu Ser Leu Ser Arg Ser  
 610 615 620  
 Leu Val Leu Asn Arg Leu Arg Pro Val Ala Ser Gly Gly Gly Lys Ala  
 625 630 635 640  
 Gln Pro Gly Ser Pro Trp Trp Arg Ser Lys Gly Tyr Arg Cys Ile Gly  
 645 650 655  
 Gly Val Leu Tyr Lys Val Ser Ala Asn Lys Leu Ser Lys Thr Ser Gly  
 660 665 670  
 Gln Pro Ser Asp Ala Gly Ser Arg Pro Leu Leu Arg Thr Gly Arg Leu  
 675 680 685  
 Asp Pro Ala Gly Ser Cys Ser Arg Ser Leu Ala Ser Arg Ala Val Gln  
 690 695 700  
 Arg Ser Leu Ala Ile Ile Arg Gln Ala Arg Gln Arg Arg Glu Lys Arg  
 705 710 715 720  
 Lys Glu Tyr Cys Met Tyr Tyr Asn Arg Phe Gly Arg Cys Asn Arg Gly  
 725 730 735  
 Glu Arg Cys Pro Tyr Ile His Asp Pro Glu Lys Val Ala Val Cys Thr  
 740 745 750  
 Arg Phe Val Arg Gly Thr Cys Lys Thr Asp Gly Thr Cys Pro Phe  
 755 760 765  
 Ser His His Val Ser Lys Glu Lys Met Pro Val Cys Ser Tyr Phe Leu  
 770 775 780  
 Lys Gly Ile Cys Ser Asn Ser Asn Cys Pro Tyr Ser His Val Tyr Val  
 785 790 795 800  
 Ser Arg Lys Ala Glu Val Cys Ser Asp Phe Leu Lys Gly Tyr Cys Pro  
 805 810 815  
 Leu Gly Ala Lys Cys Lys Lys Lys His Thr Leu Leu Cys Pro Asp Phe  
 820 825 830  
 Ala Arg Arg Gly Ala Cys Pro Arg Gly Ala Gln Cys Gln Leu Leu His  
 835 840 845  
 Arg Thr Gln Lys Arg His Ser Arg Arg Ala Ala Thr Ser Pro Ala Pro  
 850 855 860  
 Gly Pro Ser Asp Ala Thr Ala Arg Ser Arg Val Ser Ala Ser His Gly  
 865 870 875 880  
 Pro Arg Lys Pro Ser Ala Ser Gln Arg Pro Thr Arg Gln Thr Pro Ser  
 885 890 895  
 Ser Ala Ala Leu Thr Ala Ala Ala Val Ala Ala Pro Pro His Cys Pro  
 900 905 910  
 Gly Gly Ser Ala Ser Pro Ser Ser Lys Ala Ser Ser Ser Ser Ser  
 915 920 925  
 Ser Ser Ser Ser Pro Pro Ala Ser Leu Asp His Glu Ala Pro Ser Leu  
 930 935 940

Gln Glu Ala Ala Leu Ala Ala Ala Cys Ser Asn Arg Leu Cys Lys Leu  
 945 950 955 960  
 Pro Ser Phe Ile Ser Leu Gln Ser Ser Pro Ser Pro Gly Ala Gln Pro  
 965 970 975  
 Arg Val Arg Ala Pro Arg Ala Pro Leu Thr Lys Asp Ser Gly Lys Pro  
 980 985 990  
 Leu His Ile Lys Pro Arg Leu \*  
 995 999

<210> 1529  
 <211> 463  
 <212> PRT  
 <213> Homo sapiens

<400> 1529  
 Met Glu Ser Thr Pro Ser Arg Gly Leu Asn Arg Val His Leu Gln Cys  
 1 5 10 15  
 Arg Asn Leu Gln Glu Phe Leu Gly Gly Leu Ser Pro Gly Val Leu Asp  
 20 25 30  
 Arg Leu Tyr Gly His Pro Ala Thr Cys Leu Ala Val Phe Arg Glu Leu  
 35 40 45  
 Pro Ser Leu Ala Lys Asn Trp Val Met Arg Met Leu Phe Leu Glu Gln  
 50 55 60  
 Pro Leu Pro Gln Ala Ala Val Ala Leu Trp Val Lys Lys Glu Phe Ser  
 65 70 75 80  
 Lys Ala Gln Glu Glu Ser Thr Gly Leu Leu Ser Gly Leu Arg Ile Trp  
 85 90 95  
 His Thr Gln Leu Leu Pro Gly Gly Leu Gln Gly Leu Ile Leu Asn Pro  
 100 105 110  
 Ile Phe Arg Gln Asn Leu Arg Ile Ala Leu Leu Gly Gly Gly Lys Ala  
 115 120 125  
 Trp Ser Asp Asp Thr Ser Gln Leu Gly Pro Asp Lys His Ala Arg Asp  
 130 135 140  
 Val Pro Ser Leu Asp Lys Tyr Ala Glu Glu Arg Trp Glu Val Val Leu  
 145 150 155 160  
 His Phe Met Val Gly Ser Pro Ser Ala Ala Val Ser Gln Asp Leu Ala  
 165 170 175  
 Gln Leu Leu Ser Gln Ala Gly Leu Met Lys Ser Thr Glu Pro Gly Glu  
 180 185 190  
 Pro Pro Cys Ile Thr Ser Ala Gly Phe Gln Phe Leu Leu Leu Asp Thr  
 195 200 205  
 Pro Ala Gln Leu Trp Tyr Phe Met Leu Gln Tyr Leu Gln Thr Ala Gln  
 210 215 220  
 Ser Arg Gly Met Asp Leu Val Glu Ile Leu Ser Phe Leu Phe Gln Leu  
 225 230 235 240  
 Ser Phe Ser Thr Leu Gly Lys Asp Tyr Ser Val Glu Gly Met Ser Asp  
 245 250 255  
 Ser Leu Leu Asn Phe Leu Gln His Leu Arg Glu Phe Gly Leu Val Phe  
 260 265 270  
 Gln Arg Lys Arg Lys Ser Arg Arg Tyr Tyr Pro Thr Arg Leu Ala Ile  
 275 280 285  
 Asn Leu Ser Ser Gly Val Ser Gly Ala Gly Gly Thr Val His Gln Pro  
 290 295 300  
 Gly Phe Ile Val Val Glu Thr Asn Tyr Arg Leu Tyr Ala Tyr Thr Glu  
 305 310 315 320  
 Ser Glu Leu Gln Ile Ala Leu Ile Ala Leu Phe Ser Glu Met Leu Tyr  
 325 330 335  
 Arg Phe Pro Asn Met Val Val Ala Gln Val Thr Arg Glu Ser Val Gln  
 340 345 350  
 Gln Ala Ile Ala Ser Gly Ile Thr Ala Gln Gln Ile Ile His Phe Leu  
 355 360 365



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Arg Thr Arg Ala His Pro Val Met Leu Lys Gln Thr Pro Val Leu Pro
370          375          380
Pro Thr Ile Thr Asp Gln Ile Arg Leu Trp Glu Leu Glu Arg Asp Arg
385          390          395          400
Leu Arg Phe Thr Glu Gly Val Leu Tyr Asn Gln Phe Leu Ser Gln Val
405          410          415
Asp Phe Glu Leu Leu Leu Ala His Ala Arg Glu Leu Gly Val Leu Val
420          425          430
Phe Glu Asn Ser Ala Lys Arg Leu Met Val Val Thr Pro Ala Gly His
435          440          445
Ser Asp Val Lys Arg Phe Trp Lys Arg Gln Lys His Ser Ser *
450          455          460          462

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<210> 1530  
 <211> 191  
 <212> PRT  
 <213> Homo sapiens

```

<400> 1530
Met Thr Ala Ser Ala Ser Ser Phe Ser Ser Ser Gln Gly Val Gln Gln
1          5          10          15
Pro Ser Ile Tyr Ser Phe Ser Gln Ile Thr Arg Ser Leu Phe Leu Ser
20          25          30
Asn Gly Val Ala Ala Asn Asp Lys Leu Leu Leu Ser Ser Asn Arg Ile
35          40          45
Thr Ala Ile Val Asn Ala Ser Val Glu Val Val Asn Val Phe Phe Glu
50          55          60
Gly Ile Gln Tyr Ile Lys Val Pro Val Thr Asp Ala Arg Asp Ser Arg
65          70          75          80
Leu Tyr Asp Phe Phe Asp Pro Ile Ala Asp Leu Ile His Thr Ile Asp
85          90          95
Met Arg Gln Gly Arg Thr Leu Leu His Cys Met Ala Gly Val Ser Arg
100          105          110
Ser Ala Ser Leu Cys Leu Ala Tyr Leu Met Lys Tyr His Ser Met Ser
115          120          125
Leu Leu Asp Ala His Thr Trp Thr Lys Ser Arg Arg Pro Ile Ile Arg
130          135          140
Pro Asn Asn Gly Phe Trp Glu Gln Leu Ile Asn Tyr Glu Phe Lys Leu
145          150          155          160
Phe Asn Asn Asn Thr Val Arg Met Ile Asn Ser Pro Val Gly Asn Ile
165          170          175
Pro Asp Ile Tyr Glu Lys Asp Leu Arg Thr Met Ile Ser Met *
180          185          190

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<210> 1531  
 <211> 509  
 <212> PRT  
 <213> Homo sapiens

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<400> 1531
Met Gln Arg Leu Leu Thr Pro Val Lys Arg Ile Leu Gln Leu Thr Arg
1          5          10          15
Ala Val Gln Glu Thr Ser Leu Thr Pro Ala Arg Leu Leu Pro Val Ala
20          25          30
His Gln Arg Phe Ser Thr Ala Ser Ala Val Pro Leu Ala Lys Thr Asp
35          40          45
Thr Trp Pro Lys Asp Val Gly Ile Leu Ala Leu Glu Val Tyr Phe Pro
50          55          60

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Ala Gln Tyr Val Asp Gln Thr Asp Leu Glu Lys Tyr Asn Asn Val Glu  
 65 70 75 80  
 Ala Gly Lys Tyr Thr Val Gly Leu Gly Gln Thr Arg Met Gly Phe Cys  
 85 90 95  
 Ser Val Gln Glu Asp Ile Asn Ser Leu Cys Leu Thr Val Val Gln Arg  
 100 105 110  
 Leu Met Glu Arg Ile Gln Leu Pro Trp Asp Ser Val Gly Arg Leu Glu  
 115 120 125  
 Val Gly Thr Glu Thr Ile Ile Asp Lys Ser Lys Ala Val Lys Thr Val  
 130 135 140  
 Leu Met Glu Leu Phe Gln Asp Ser Gly Asn Thr Asp Ile Glu Gly Ile  
 145 150 155 160  
 Asp Thr Thr Asn Ala Cys Tyr Gly Gly Thr Ala Ser Leu Phe Asn Ala  
 165 170 175  
 Ala Asn Trp Met Glu Ser Ser Ser Trp Asp Gly Arg Tyr Ala Met Val  
 180 185 190  
 Val Cys Gly Asp Ile Ala Val Tyr Pro Ser Gly Asn Ala Arg Pro Thr  
 195 200 205  
 Gly Gly Ala Gly Ala Val Ala Met Leu Ile Gly Pro Lys Ala Pro Leu  
 210 215 220  
 Ala Leu Glu Arg Gly Leu Arg Gly Thr His Met Glu Asn Val Tyr Asp  
 225 230 235 240  
 Phe Tyr Lys Pro Asn Leu Ala Ser Glu Tyr Pro Ile Val Asp Gly Lys  
 245 250 255  
 Leu Ser Ile Gln Cys Tyr Leu Arg Ala Leu Asp Arg Cys Tyr Thr Ser  
 260 265 270  
 Tyr Arg Lys Lys Ile Gln Asn Gln Trp Lys Gln Ala Gly Ser Asp Arg  
 275 280 285  
 Pro Phe Thr Leu Asp Asp Leu Gln Tyr Met Ile Phe His Thr Pro Phe  
 290 295 300  
 Cys Lys Met Val Gln Lys Ser Leu Ala Arg Leu Met Phe Asn Asp Phe  
 305 310 315 320  
 Leu Ser Ala Ser Ser Asp Thr Gln Thr Ser Leu Tyr Lys Gly Leu Glu  
 325 330 335  
 Ala Phe Gly Gly Leu Lys Leu Glu Asp Thr Tyr Thr Asn Lys Asp Leu  
 340 345 350  
 Asp Lys Ala Leu Leu Lys Ala Ser Gln Asp Met Phe Asp Lys Lys Thr  
 355 360 365  
 Lys Ala Ser Leu Tyr Leu Ser Thr His Asn Gly Asn Met Tyr Thr Ser  
 370 375 380  
 Ser Leu Tyr Gly Cys Leu Ala Ser Leu Leu Ser His His Ser Ala Gln  
 385 390 395 400  
 Glu Leu Ala Gly Ser Arg Ile Gly Ala Phe Ser Tyr Gly Ser Gly Leu  
 405 410 415  
 Ala Ala Ser Phe Phe Ser Phe Arg Val Ser Gln Asp Ala Ala Pro Gly  
 420 425 430  
 Ser Pro Leu Asp Lys Leu Val Ser Ser Thr Ser Asp Leu Pro Lys Arg  
 435 440 445  
 Leu Ala Ser Arg Lys Cys Val Ser Pro Glu Glu Phe Thr Glu Ile Met  
 450 455 460  
 Asn Gln Arg Glu Gln Phe Tyr His Lys Val Asn Phe Ser Pro Pro Gly  
 465 470 475 480  
 Asp Thr Asn Ser Leu Phe Pro Gly Thr Trp Tyr Leu Glu Arg Val Asp  
 485 490 495  
 Glu Gln His Arg Arg Lys Tyr Ala Arg Arg Pro Val \*  
 500 505 508

&lt;210&gt; 1532

&lt;211&gt; 892

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<400> 1532

Met	Leu	Pro	Thr	Glu	Val	Pro	Gln	Ser	His	Pro	Gly	Pro	Ser	Ala	Leu
1				5					10					15	
Leu	Leu	Leu	Gln	Leu	Leu	Leu	Pro	Pro	Thr	Ser	Ala	Phe	Phe	Pro	Asn
			20					25					30		
Ile	Trp	Ser	Leu	Leu	Ala	Ala	Pro	Gly	Ser	Ile	Thr	His	Gln	Asp	Leu
		35					40					45			
Thr	Glu	Glu	Ala	Ala	Leu	Asn	Val	Thr	Leu	Gln	Leu	Phe	Leu	Glu	Gln
	50					55				60					
Pro	Pro	Pro	Gly	Arg	Pro	Pro	Leu	Arg	Leu	Glu	Asp	Phe	Leu	Gly	Arg
65				70					75					80	
Thr	Leu	Leu	Ala	Asp	Asp	Leu	Phe	Ala	Ala	Tyr	Phe	Gly	Pro	Gly	Ser
			85					90						95	
Ser	Arg	Arg	Phe	Arg	Ala	Ala	Leu	Gly	Glu	Val	Ser	Arg	Ala	Asn	Ala
			100					105					110		
Ala	Gln	Asp	Phe	Leu	Pro	Thr	Ser	Arg	Asn	Asp	Pro	Asp	Leu	His	Phe
	115					120				125					
Asp	Ala	Glu	Arg	Leu	Gly	Gln	Gly	Arg	Ala	Arg	Leu	Val	Gly	Ala	Leu
130					135					140					
Arg	Glu	Thr	Val	Val	Ala	Ala	Arg	Ala	Leu	Asp	His	Thr	Leu	Ala	Arg
145				150					155					160	
Gln	Arg	Leu	Gly	Ala	Ala	Leu	His	Ala	Leu	Gln	Asp	Phe	Tyr	Ser	His
			165					170					175		
Ser	Asn	Trp	Val	Glu	Leu	Gly	Glu	Gln	Gln	Pro	His	Pro	His	Leu	Leu
	180						185					190			
Trp	Pro	Arg	Gln	Glu	Leu	Gln	Asn	Leu	Ala	Gln	Val	Ala	Asp	Pro	Thr
	195					200					205				
Cys	Ser	Asp	Cys	Glu	Glu	Leu	Ser	Cys	Pro	Arg	Asn	Trp	Leu	Gly	Phe
210					215						220				
Thr	Leu	Leu	Thr	Ser	Gly	Tyr	Phe	Gly	Thr	His	Pro	Pro	Lys	Pro	Pro
225				230					235					240	
Gly	Lys	Cys	Ser	His	Gly	Gly	His	Phe	Asp	Arg	Ser	Ser	Ser	Gln	Pro
			245					250						255	
Pro	Arg	Gly	Gly	Ile	Asn	Lys	Asp	Ser	Thr	Ser	Pro	Gly	Phe	Ser	Pro
		260					265					270			
His	His	Met	Leu	His	Leu	Gln	Ala	Lys	Leu	Ala	Leu	Leu	Ala	Ser	
	275				280						285				
Ile	Gln	Ala	Phe	Ser	Leu	Leu	Arg	Ser	Arg	Leu	Gly	Asp	Arg	Asp	Phe
290					295					300					
Ser	Arg	Leu	Leu	Asp	Ile	Thr	Pro	Ala	Ser	Ser	Leu	Ser	Phe	Val	Leu
305				310					315					320	
Asp	Thr	Thr	Gly	Ser	Met	Gly	Glu	Glu	Ile	Asn	Ala	Ala	Lys	Ile	Gln
			325					330					335		
Ala	Arg	His	Leu	Val	Glu	Gln	Arg	Arg	Gly	Ser	Pro	Met	Glu	Pro	Val
		340					345					350			
His	Tyr	Val	Leu	Val	Pro	Phe	His	Asp	Pro	Gly	Phe	Gly	Pro	Val	Phe
	355					360					365				
Thr	Thr	Ser	Asp	Pro	Asp	Ser	Phe	Trp	Gln	Gln	Leu	Asn	Glu	Ile	His
	370				375						380				
Ala	Leu	Gly	Gly	Gly	Asp	Glu	Pro	Glu	Met	Cys	Leu	Ser	Ala	Leu	Gln
385				390					395					400	
Leu	Ala	Leu	Leu	His	Thr	Pro	Pro	Leu	Ser	Asp	Ile	Phe	Val	Phe	Thr
			405					410					415		
Asp	Ala	Ser	Pro	Lys	Asp	Ala	Phe	Leu	Thr	Asn	Gln	Val	Glu	Ser	Leu
		420					425					430			
Thr	Gln	Glu	Arg	Arg	Cys	Arg	Val	Thr	Phe	Leu	Val	Thr	Glu	Asp	Thr
	435					440					445				
Ser	Arg	Val	Gln	Gly	Arg	Ala	Arg	Arg	Glu	Ile	Leu	Ser	Pro	Leu	Arg
	450				455					460					
Phe	Glu	Pro	Tyr	Lys	Ala	Val	Ala	Leu	Ala	Ser	Gly	Gly	Glu	Val	Ile
465				470					475					480	
Phe	Thr	Lys	Asp	Gln	His	Ile	Arg	Asp	Val	Ala	Ala	Ile	Val	Gly	Glu
			485					490						495	

Ser Met Ala Ala Leu Val Thr Leu Pro Leu Asp Pro Pro Val Val Val  
 500 505 510  
 Pro Gly Gln Pro Leu Val Phe Ser Val Asp Gly Leu Leu Gln Lys Ile  
 515 520 525  
 Thr Val Arg Ile His Gly Asp Ile Ser Ser Phe Trp Ile Lys Asn Pro  
 530 535 540  
 Ala Gly Val Ser Gln Gly Gln Glu Glu Gly Gly Gly Pro Leu Gly His  
 545 550 555 560  
 Thr Arg Arg Phe Gly Gln Phe Trp Met Val Thr Met Asp Asp Pro Pro  
 565 570 575  
 Gln Thr Gly Thr Trp Glu Ile Gln Val Thr Ala Glu Asp Thr Pro Gly  
 580 585 590  
 Val Arg Val Gln Ala Gln Thr Ser Leu Asp Phe Leu Phe His Phe Gly  
 595 600 605  
 Ile Pro Met Glu Asp Gly Pro His Pro Gly Leu Tyr Pro Leu Thr Gln  
 610 615 620  
 Pro Val Ala Gly Leu Gln Thr Gln Leu Leu Val Glu Val Thr Gly Leu  
 625 630 635 640  
 Gly Ser Arg Ala Asn Pro Gly Asp Pro Gln Pro His Phe Ser His Val  
 645 650 655  
 Ile Leu Arg Gly Val Pro Glu Gly Ala Glu Leu Gly Gln Val Pro Leu  
 660 665 670  
 Glu Pro Val Gly Pro Pro Glu Arg Gly Leu Leu Ala Ala Ser Leu Ser  
 675 680 685  
 Pro Thr Leu Leu Ser Thr Pro Arg Pro Phe Ser Leu Glu Leu Ile Gly  
 690 695 700  
 Gln Asp Ala Ala Gly Arg Arg Leu His Arg Ala Ala Pro Gln Pro Ser  
 705 710 715 720  
 Thr Val Val Pro Val Leu Leu Glu Leu Ser Gly Pro Ser Gly Phe Leu  
 725 730 735  
 Ala Pro Gly Ser Lys Val Pro Leu Ser Leu Arg Ile Ala Ser Phe Ser  
 740 745 750  
 Gly Pro Gln Asp Leu Asp Leu Arg Thr Phe Val Asn Pro Ser Phe Ser  
 755 760 765  
 Leu Thr Ser Asn Leu Ser Arg Ala His Leu Glu Leu Asn Glu Ser Ala  
 770 775 780  
 Trp Gly Arg Leu Trp Leu Glu Val Pro Asp Ser Ala Ala Pro Asp Ser  
 785 790 795 800  
 Val Val Met Val Thr Val Thr Ala Gly Gly Arg Glu Ala Asn Pro Val  
 805 810 815  
 Pro Pro Thr His Ala Phe Leu Arg Leu Leu Val Ser Ala Pro Ala Pro  
 820 825 830  
 Gln Asp Arg His Thr Thr Pro Thr Gly Ser Ser Asp Pro Ile Leu Thr  
 835 840 845  
 Thr Ala Thr Pro Ala Phe Ser Pro Phe Thr Leu Val Thr Gln Gly Arg  
 850 855 860  
 Ala Gly Ala Gly Leu Ala Ala Gly Ser Pro Trp Trp Gly Thr Val Gly  
 865 870 875 880  
 Gly Val Leu Leu Leu Leu Gly Leu Ala Ser Trp \*  
 885 890 891

&lt;210&gt; 1533

&lt;211&gt; 1328

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1533

Met Thr Val Phe Ser Gly Leu Phe Val Gly Gly Leu Pro Pro Glu Leu  
 1 5 10 15  
 Arg Ala Ala Ala Leu Lys Leu Thr Leu Ala Ser Val Arg Glu Arg Glu  
 20 25 30

Pro Phe Lys Gly Trp Ile Arg Asp Val Arg Val Asn Ser Ser Gln Val  
                   35                  40                  45  
 Leu Pro Val Asp Ser Gly Glu Val Lys Leu Asp Asp Glu Pro Pro Asn  
                   50                  55                  60  
 Ser Gly Gly Gly Ser Pro Cys Glu Ala Gly Glu Glu Gly Glu Gly Gly  
                   65                  70                  75                  80  
 Val Cys Leu Asn Gly Gly Val Cys Ser Val Val Asp Asp Gln Ala Val  
                   85                  90                  95  
 Cys Asp Cys Ser Arg Thr Gly Phe Arg Gly Lys Asp Cys Ser Gln Glu  
                   100                  105                  110  
 Asp Asn Asn Val Glu Gly Leu Ala His Leu Met Met Gly Asp Gln Gly  
                   115                  120                  125  
 Lys Glu Glu Tyr Ile Ala Thr Phe Lys Gly Ser Glu Tyr Phe Cys Tyr  
                   130                  135                  140  
 Asp Leu Ser Gln Asn Pro Ile Gln Ser Ser Ser Asp Glu Ile Thr Leu  
                   145                  150                  155                  160  
 Ser Phe Lys Thr Leu Gln Arg Asn Gly Leu Met Leu His Thr Gly Lys  
                   165                  170                  175  
 Ser Ala Asp Tyr Val Asn Leu Ala Leu Lys Asn Gly Ala Val Ser Leu  
                   180                  185                  190  
 Val Ile Asn Leu Gly Ser Gly Ala Phe Glu Ala Leu Val Glu Pro Val  
                   195                  200                  205  
 Asn Gly Lys Phe Asn Asp Asn Ala Trp His Asp Val Lys Val Thr Arg  
                   210                  215                  220  
 Asn Leu Arg Gln His Ser Gly Ile Gly His Ala Met Val Thr Ile Ser  
                   225                  230                  235                  240  
 Val Asp Gly Ile Leu Thr Thr Thr Gly Tyr Thr Gln Glu Asp Tyr Thr  
                   245                  250                  255  
 Met Leu Gly Ser Asp Asp Phe Phe Tyr Val Gly Gly Ser Pro Ser Thr  
                   260                  265                  270  
 Ala Asp Leu Pro Gly Ser Pro Val Ser Asn Asn Phe Met Gly Cys Leu  
                   275                  280                  285  
 Lys Glu Val Val Tyr Lys Asn Asn Asp Val Arg Leu Glu Leu Ser Arg  
                   290                  295                  300  
 Leu Ala Lys Gln Gly Asp Pro Lys Met Lys Ile His Gly Val Val Ala  
                   305                  310                  315                  320  
 Phe Lys Cys Glu Asn Val Ala Thr Leu Asp Pro Ile Thr Phe Glu Thr  
                   325                  330                  335  
 Pro Glu Ser Phe Ile Ser Leu Pro Lys Trp Asn Ala Lys Lys Thr Gly  
                   340                  345                  350  
 Ser Ile Ser Phe Asp Phe Arg Thr Thr Glu Pro Asn Gly Leu Ile Leu  
                   355                  360                  365  
 Phe Ser His Gly Lys Pro Arg His Gln Lys Asp Ala Lys His Pro Gln  
                   370                  375                  380  
 Met Ile Lys Val Asp Phe Phe Ala Ile Glu Met Leu Asp Gly His Leu  
                   385                  390                  395                  400  
 Tyr Leu Leu Leu Asp Met Gly Ser Gly Thr Ile Lys Ile Lys Ala Leu  
                   405                  410                  415  
 Leu Lys Lys Val Asn Asp Gly Glu Trp Tyr His Val Asp Phe Gln Arg  
                   420                  425                  430  
 Asp Gly Arg Ser Gly Thr Ile Ser Val Asn Thr Leu Arg Thr Pro Tyr  
                   435                  440                  445  
 Thr Ala Pro Gly Glu Ser Glu Ile Leu Asp Leu Asp Asp Glu Leu Tyr  
                   450                  455                  460  
 Leu Gly Gly Leu Pro Glu Asn Lys Ala Gly Leu Val Phe Pro Thr Glu  
                   465                  470                  475                  480  
 Val Trp Thr Ala Leu Asn Tyr Gly Tyr Val Gly Cys Ile Arg Asp  
                   485                  490                  495  
 Leu Phe Ile Asp Gly Gln Ser Lys Asp Ile Arg Gln Met Ala Glu Val  
                   500                  505                  510  
 Gln Ser Thr Ala Gly Val Lys Pro Ser Cys Ser Lys Glu Thr Ala Lys  
                   515                  520                  525  
 Pro Cys Leu Ser Asn Pro Cys Lys Asn Asn Gly Met Cys Arg Asp Gly  
                   530                  535                  540

Trp Asn Arg Tyr Val Cys Asp Cys Ser Gly Thr Gly Tyr Leu Gly Arg  
 545 550 555 560  
 Ser Cys Glu Arg Glu Ala Thr Val Leu Ser Tyr Asp Gly Ser Met Phe  
 565 570 575  
 Met Lys Ile Gln Leu Pro Val Val Met His Thr Glu Ala Glu Asp Val  
 580 585 590  
 Ser Leu Arg Phe Arg Ser Gln Arg Ala Tyr Gly Ile Leu Met Ala Thr  
 595 600 605  
 Thr Ser Arg Asp Ser Ala Asp Thr Leu Arg Leu Glu Leu Asp Ala Gly  
 610 615 620  
 Arg Val Lys Leu Thr Val Asn Leu Asp Cys Ile Arg Ile Asn Cys Asn  
 625 630 635 640  
 Ser Ser Lys Gly Pro Glu Thr Leu Phe Ala Gly Tyr Asn Leu Asn Asp  
 645 650 655  
 Asn Glu Trp His Thr Val Arg Val Val Arg Arg Gly Lys Ser Leu Lys  
 660 665 670  
 Leu Thr Val His Asp Gln Gln Ala Met Thr Gly Gln Met Ala Gly Asp  
 675 680 685  
 His Thr Arg Leu Glu Phe His Asn Ile Glu Thr Gly Ile Ile Thr Glu  
 690 695 700  
 Arg Arg Tyr Leu Ser Ser Val Pro Ser Asn Phe Ile Gly His Leu Gln  
 705 710 715 720  
 Ser Leu Thr Phe Asn Gly Met Ala Tyr Ile Asp Leu Cys Lys Asn Gly  
 725 730 735  
 Asp Ile Asp Tyr Cys Glu Leu Asn Ala Arg Phe Gly Phe Arg Asn Ile  
 740 745 750  
 Ile Ala Asp Pro Val Thr Phe Lys Thr Lys Ser Ser Tyr Val Ala Leu  
 755 760 765  
 Ala Thr Leu Gln Ala Tyr Thr Ser Met His Leu Phe Phe Gln Phe Lys  
 770 775 780  
 Thr Thr Ser Leu Asp Gly Leu Ile Leu Tyr Asn Ser Gly Asp Gly Asn  
 785 790 795 800  
 Asp Phe Ile Val Val Glu Leu Val Lys Gly Tyr Leu His Tyr Val Phe  
 805 810 815  
 Asp Leu Gly Asn Gly Ala Asn Leu Ile Lys Gly Ser Ser Asn Lys Pro  
 820 825 830  
 Leu Asn Asp Asn Gln Trp His Asn Val Met Ile Ser Arg Asp Thr Ser  
 835 840 845  
 Asn Leu His Thr Val Lys Ile Asp Thr Lys Ile Thr Thr Gln Ile Thr  
 850 855 860  
 Ala Gly Ala Arg Asn Leu Asp Leu Lys Ser Asp Leu Tyr Ile Gly Gly  
 865 870 875 880  
 Val Ala Lys Glu Thr Tyr Lys Ser Leu Pro Lys Leu Val His Ala Lys  
 885 890 895  
 Glu Gly Phe Gln Gly Cys Leu Ala Ser Val Asp Leu Asn Gly Arg Leu  
 900 905 910  
 Pro Asp Leu Ile Ser Asp Ala Leu Phe Cys Asn Gly Gln Ile Glu Arg  
 915 920 925  
 Gly Cys Glu Gly Pro Ser Thr Thr Cys Gln Glu Asp Ser Cys Ser Asn  
 930 935 940  
 Gln Gly Val Cys Leu Gln Gln Trp Asp Gly Phe Ser Cys Asp Cys Ser  
 945 950 955 960  
 Met Thr Ser Phe Ser Gly Pro Leu Cys Asn Asp Pro Gly Thr Thr Tyr  
 965 970 975  
 Ile Phe Ser Lys Gly Gly Gly Gln Ile Thr Tyr Lys Trp Pro Pro Asn  
 980 985 990  
 Asp Arg Pro Ser Thr Arg Ala Asp Arg Leu Ala Ile Gly Phe Ser Thr  
 995 1000 1005  
 Val Gln Lys Glu Ala Val Leu Val Arg Val Asp Ser Ser Ser Gly Leu  
 1010 1015 1020  
 Gly Asp Tyr Leu Glu Leu His Ile His Gln Gly Lys Ile Gly Val Lys  
 1025 1030 1035 1040  
 Phe Asn Val Gly Thr Asp Asp Ile Ala Ile Glu Glu Ser Asn Ala Ile  
 1045 1050 1055

Ile Asn Asp Gly Lys Tyr His Val Val Arg Phe Thr Arg Ser Gly Gly  
 1060 1065 1070  
 Asn Ala Thr Leu Gln Val Asp Ser Trp Pro Val Ile Glu Arg Tyr Pro  
 1075 1080 1085  
 Ala Gly Arg Gln Leu Thr Ile Phe Asn Ser Gln Ala Thr Ile Ile Ile  
 1090 1095 1100  
 Gly Gly Lys Glu Gln Gly Gln Pro Phe Gln Gly Gln Leu Ser Gly Leu  
 1105 1110 1115 1120  
 Tyr Tyr Asn Gly Leu Lys Val Leu Asn Met Ala Ala Glu Asn Asp Ala  
 1125 1130 1135  
 Asn Ile Ala Ile Val Gly Asn Val Arg Leu Val Gly Glu Val Pro Ser  
 1140 1145 1150  
 Ser Met Thr Thr Glu Ser Thr Ala Thr Ala Met Gln Ser Glu Met Ser  
 1155 1160 1165  
 Thr Ser Ile Met Glu Thr Thr Thr Leu Ala Thr Ser Thr Ala Arg  
 1170 1175 1180  
 Arg Gly Lys Pro Pro Thr Lys Glu Pro Ile Ser Gln Thr Thr Asp Asp  
 1185 1190 1195 1200  
 Ile Leu Val Ala Ser Ala Glu Cys Pro Ser Asp Asp Glu Asp Ile Asp  
 1205 1210 1215  
 Pro Cys Glu Pro Ser Ser Gly Gly Leu Ala Asn Pro Thr Arg Ala Gly  
 1220 1225 1230  
 Gly Arg Glu Pro Tyr Pro Gly Ser Ala Glu Val Ile Arg Glu Ser Ser  
 1235 1240 1245  
 Ser Thr Thr Gly Met Val Val Gly Ile Val Ala Ala Ala Leu Cys  
 1250 1255 1260  
 Ile Leu Ile Leu Leu Tyr Ala Met Tyr Lys Tyr Arg Asn Arg Asp Glu  
 1265 1270 1275 1280  
 Gly Ser Tyr His Val Asp Glu Ser Arg Asn Tyr Ile Ser Asn Ser Ala  
 1285 1290 1295  
 Gln Ser Asn Gly Ala Val Val Lys Glu Lys Gln Pro Ser Ser Ala Lys  
 1300 1305 1310  
 Ser Ser Asn Lys Asn Lys Lys Asn Lys Asp Lys Glu Tyr Tyr Val \*  
 1315 1320 1325 1327

<210> 1534  
 <211> 55  
 <212> PRT  
 <213> Homo sapiens

<400> 1534  
 Met Pro Lys Arg Lys Pro Ser Glu Gly Ala Met Ser Asp Lys Val Lys  
 1 5 10 15  
 Ala Ser Leu Ser Tyr Arg Gly Asp Gln Gln Asp Tyr Phe Leu Asn Leu  
 20 25 30  
 Pro Leu Gln Asn Gln Arg Pro Gly Leu Arg Arg Thr Leu Gln Ile Arg  
 35 40 45  
 Asp Arg Ser Cys Leu Lys \*  
 50 54

<210> 1535  
 <211> 976  
 <212> PRT  
 <213> Homo sapiens

<400> 1535  
 Met Glu Val Ala Glu Val Glu Ser Pro Leu Asn Pro Ser Cys Lys Ile  
 1 5 10 15

Met	Thr	Phe	Arg	Pro	Ser	Met	Glu	Glu	Phe	Arg	Glu	Phe	Asn	Lys	Tyr
			20					25					30		
Leu	Ala	Tyr	Met	Glu	Ser	Lys	Gly	Ala	His	Arg	Ala	Gly	Leu	Ala	Lys
		35					40					45			
Val	Ile	Pro	Pro	Lys	Glu	Trp	Lys	Pro	Arg	Gln	Cys	Tyr	Asp	Asp	Ile
		50				55					60				
Asp	Asn	Leu	Leu	Ile	Pro	Ala	Pro	Ile	Gln	Gln	Met	Val	Thr	Gly	Gln
		65			70					75					80
Ser	Gly	Leu	Phe	Thr	Gln	Tyr	Asn	Ile	Gln	Lys	Lys	Ala	Met	Thr	Val
				85					90					95	
Lys	Glu	Phe	Arg	Gln	Leu	Ala	Asn	Ser	Gly	Lys	Tyr	Cys	Thr	Pro	Arg
			100				105						110		
Tyr	Leu	Asp	Tyr	Glu	Asp	Leu	Glu	Arg	Lys	Tyr	Trp	Lys	Asn	Leu	Thr
		115					120					125			
Phe	Val	Ala	Pro	Ile	Tyr	Gly	Ala	Asp	Ile	Asn	Gly	Ser	Ile	Tyr	Asp
		130				135					140				
Glu	Gly	Val	Asp	Glu	Trp	Asn	Ile	Ala	Arg	Leu	Asn	Thr	Val	Leu	Asp
		145			150					155					160
Val	Val	Glu	Glu	Glu	Cys	Gly	Ile	Ser	Ile	Glu	Gly	Val	Asn	Thr	Pro
				165					170					175	
Tyr	Leu	Tyr	Phe	Gly	Met	Trp	Lys	Thr	Thr	Phe	Ala	Trp	His	Thr	Glu
			180				185						190		
Asp	Met	Asp	Leu	Tyr	Ser	Ile	Asn	Tyr	Leu	His	Phe	Gly	Glu	Pro	Lys
		195					200					205			
Ser	Trp	Tyr	Ala	Ile	Pro	Pro	Glu	His	Gly	Lys	Arg	Leu	Glu	Arg	Leu
		210				215					220				
Ala	Gln	Gly	Phe	Phe	Pro	Ser	Ser	Ser	Gln	Gly	Cys	Asp	Ala	Phe	Leu
		225			230					235					240
Arg	His	Lys	Met	Thr	Leu	Ile	Ser	Pro	Ser	Val	Leu	Lys	Lys	Tyr	Gly
				245					250					255	
Ile	Pro	Phe	Asp	Lys	Ile	Thr	Gln	Glu	Ala	Gly	Glu	Phe	Met	Ile	Thr
		260					265					270			
Phe	Pro	Tyr	Gly	Tyr	His	Ala	Gly	Phe	Asn	His	Gly	Phe	Asn	Cys	Ala
		275				280					285				
Glu	Ser	Thr	Asn	Phe	Ala	Thr	Val	Arg	Trp	Ile	Asp	Tyr	Gly	Lys	Val
		290				295					300				
Ala	Lys	Leu	Cys	Thr	Cys	Arg	Lys	Asp	Met	Val	Lys	Ile	Ser	Met	Asp
		305			310					315					320
Ile	Phe	Val	Arg	Lys	Phe	Gln	Pro	Asp	Arg	Tyr	Gln	Leu	Trp	Lys	Gln
				325					330					335	
Gly	Lys	Asp	Ile	Tyr	Thr	Ile	Asp	His	Thr	Lys	Pro	Thr	Pro	Ala	Ser
		340					345					350			
Thr	Pro	Glu	Val	Lys	Ala	Trp	Leu	Gln	Arg	Arg	Arg	Lys	Val	Arg	Lys
		355					360					365			
Ala	Ser	Arg	Ser	Phe	Gln	Cys	Ala	Arg	Ser	Thr	Ser	Lys	Arg	Pro	Lys
		370				375					380				
Ala	Asp	Glu	Glu	Glu	Glu	Val	Ser	Asp	Glu	Val	Asp	Gly	Ala	Glu	Val
		385			390				395						400
Pro	Asn	Pro	Asp	Ser	Val	Thr	Asp	Asp	Leu	Lys	Val	Ser	Glu	Lys	Ser
				405					410					415	
Glu	Ala	Ala	Val	Lys	Leu	Arg	Asn	Thr	Glu	Ala	Ser	Ser	Glu	Glu	Glu
			420					425					430		
Ser	Ser	Ala	Ser	Arg	Met	Gln	Val	Glu	Gln	Asn	Leu	Ser	Asp	His	Ile
		435				440						445			
Lys	Leu	Ser	Gly	Asn	Ser	Cys	Leu	Ser	Thr	Ser	Val	Thr	Glu	Asp	Ile
		450				455					460				
Lys	Thr	Glu	Asp	Asp	Lys	Ala	Tyr	Ala	Tyr	Arg	Ser	Val	Pro	Ser	Ile
		465			470					475					480
Ser	Ser	Glu	Ala	Asp	Asp	Ser	Ile	Pro	Leu	Ser	Thr	Gly	Tyr	Glu	Lys
				485					490					495	
Pro	Glu	Lys	Ser	Asp	Pro	Ser	Glu	Leu	Ser	Trp	Pro	Lys	Ser	Pro	Glu
			500				505					510			
Ser	Cys	Ser	Ser	Val	Ala	Glu	Ser	Asn	Gly	Val	Leu	Thr	Glu	Gly	Glu
			515				520					525			



Glu Ser Asp Val Glu Ser His Gly Asn Gly Leu Glu Pro Gly Glu Ile  
 530 535 540  
 Pro Ala Val Pro Ser Gly Glu Arg Asn Ser Phe Lys Val Pro Ser Ile  
 545 550 555 560  
 Ala Glu Gly Glu Asn Lys Thr Ser Lys Ser Trp Arg His Pro Leu Ser  
 565 570 575  
 Arg Pro Pro Ala Arg Ser Pro Met Thr Leu Val Lys Gln Gln Ala Pro  
 580 585 590  
 Ser Asp Glu Glu Leu Pro Glu Val Leu Ser Ile Glu Glu Glu Val Glu  
 595 600 605  
 Glu Thr Glu Ser Trp Ala Lys Pro Leu Ile His Leu Trp Gln Thr Lys  
 610 615 620  
 Ser Pro Asn Phe Ala Ala Glu Gln Glu Tyr Asn Ala Thr Val Ala Arg  
 625 630 635 640  
 Met Lys Pro His Cys Ala Ile Cys Thr Leu Leu Met Pro Tyr His Lys  
 645 650 655  
 Pro Asp Ser Ser Asn Glu Glu Asn Asp Ala Arg Trp Glu Thr Lys Leu  
 660 665 670  
 Asp Glu Val Val Thr Ser Glu Gly Lys Thr Lys Pro Leu Ile Pro Glu  
 675 680 685  
 Met Cys Phe Ile Tyr Ser Glu Glu Asn Ile Glu Tyr Ser Pro Pro Asn  
 690 695 700  
 Ala Phe Leu Glu Glu Asp Gly Thr Ser Leu Leu Ile Ser Cys Ala Lys  
 705 710 715 720  
 Cys Cys Val Arg Val His Ala Ser Cys Tyr Gly Ile Pro Ser His Glu  
 725 730 735  
 Ile Cys Asp Gly Trp Leu Cys Ala Arg Cys Lys Arg Asn Ala Trp Thr  
 740 745 750  
 Ala Glu Cys Cys Leu Cys Asn Leu Arg Gly Gly Ala Leu Lys Gln Thr  
 755 760 765  
 Lys Asn Asn Lys Trp Ala His Val Met Cys Ala Val Ala Val Pro Glu  
 770 775 780  
 Val Arg Phe Thr Asn Val Pro Glu Arg Thr Gln Ile Asp Val Gly Arg  
 785 790 795 800  
 Ile Pro Leu Gln Arg Leu Lys Leu Lys Cys Ile Phe Cys Arg His Arg  
 805 810 815  
 Val Lys Arg Val Ser Gly Ala Cys Ile Gln Cys Ser Tyr Gly Arg Cys  
 820 825 830  
 Pro Ala Ser Phe His Val Thr Cys Ala His Ala Ala Gly Val Leu Met  
 835 840 845  
 Glu Pro Asp Asp Trp Pro Tyr Val Val Asn Ile Thr Cys Phe Arg His  
 850 855 860  
 Lys Val Asn Pro Asn Val Lys Ser Lys Ala Cys Glu Lys Val Ile Ser  
 865 870 875 880  
 Val Gly Gln Thr Val Ile Thr Lys His Arg Asn Thr Arg Tyr Tyr Ser  
 885 890 895  
 Cys Arg Val Met Ala Val Thr Ser Gln Thr Phe Tyr Glu Val Met Phe  
 900 905 910  
 Asp Asp Gly Ser Phe Ser Arg Asp Thr Phe Pro Glu Asp Ile Val Ser  
 915 920 925  
 Arg Asp Cys Leu Lys Leu Gly Pro Pro Ala Glu Gly Glu Val Val Gln  
 930 935 940  
 Val Lys Trp Pro Asp Gly Lys Leu Tyr Gly Ala Lys Tyr Phe Gly Ser  
 945 950 955 960  
 Asn Ile Ala His Met Tyr Gln Val Glu Leu Lys Met Asp Pro Arg \*  
 965 970 975

<210> 1536  
 <211> 171  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 1536

```

Met Ser Val Arg Val Ala Pro Gln Gly Leu Glu Arg Val Pro Gly Ile
 1           5           10           15
Phe Ile Ser Arg Leu Val Arg Gly Gly Leu Ala Glu Ser Thr Gly Leu
          20           25           30
Leu Ala Val Ser Asp Glu Ile Leu Glu Val Asn Gly Ile Glu Val Ala
          35           40           45
Gly Lys Thr Leu Asp Gln Val Thr Asp Met Met Val Ala Asn Ser His
          50           55           60
Asn Leu Ile Val Thr Val Lys Pro Ala Asn Gln Arg Asn Asn Val Val
          65           70           75           80
Arg Gly Ala Ser Gly Arg Leu Thr Gly Pro Pro Ser Ala Gly Pro Gly
          85           90           95
Pro Ala Glu Pro Asp Ser Asp Asp Asp Ser Ser Asp Leu Val Ile Glu
          100          105          110
Asn Arg Gln Pro Pro Ser Ser Asn Gly Leu Ser Gln Gly Pro Pro Cys
          115          120          125
Trp Asp Leu His Pro Gly Cys Arg His Pro Gly Thr Arg Ser Ser Leu
          130          135          140
Pro Ser Leu Asp Asp Gln Glu Gln Ala Ser Ser Gly Trp Gly Ser Arg
          145          150          155          160
Ile Arg Gly Asp Gly Ser Gly Phe Ser Leu *
          165          170

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&lt;210&gt; 1537

&lt;211&gt; 940

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1537

```

Met Ala Ala Gln Pro Pro Arg Gly Ile Arg Leu Ser Ala Leu Cys Pro
 1           5           10           15
Lys Phe Leu His Thr Asn Ser Thr Ser His Thr Trp Pro Phe Ser Ala
          20           25           30
Val Ala Glu Leu Ile Asp Asn Ala Tyr Asp Pro Asp Val Asn Ala Lys
          35           40           45
Gln Ile Trp Ile Asp Lys Thr Val Ile Asn Asp His Ile Cys Leu Thr
          50           55           60
Phe Thr Asp Asn Gly Asn Gly Met Thr Ser Asp Lys Leu His Lys Met
          65           70           75           80
Leu Ser Phe Gly Phe Ser Asp Lys Val Thr Met Asn Gly His Val Pro
          85           90           95
Val Gly Leu Tyr Gly Asn Gly Phe Lys Ser Gly Ser Met Arg Leu Gly
          100          105          110
Lys Asp Ala Ile Val Phe Thr Lys Asn Gly Glu Ser Met Ser Val Gly
          115          120          125
Leu Leu Ser Gln Thr Tyr Leu Glu Val Ile Lys Ala Glu His Val Val
          130          135          140
Val Pro Ile Val Ala Phe Asn Lys His Arg Gln Met Ile Asn Leu Ala
          145          150          155          160
Glu Ser Lys Ala Ser Leu Ala Ala Ile Leu Glu His Ser Leu Phe Ser
          165          170          175
Thr Glu Gln Lys Leu Leu Ala Glu Leu Asp Ala Ile Ile Gly Lys Lys
          180          185          190
Gly Thr Arg Ile Ile Ile Trp Asn Leu Arg Ser Tyr Lys Asn Ala Thr
          195          200          205
Glu Phe Asp Phe Glu Lys Asp Lys Tyr Asp Ile Arg Ile Pro Glu Asp
          210          215          220
Leu Asp Glu Ile Thr Gly Lys Lys Gly Tyr Lys Lys Gln Glu Arg Met
          225          230          235          240

```

Asp	Gln	Ile	Ala	Pro	Glu	Ser	Asp	Tyr	Ser	Leu	Arg	Ala	Tyr	Cys	Ser
				245					250					255	
Ile	Leu	Tyr	Leu	Lys	Pro	Arg	Met	Gln	Ile	Ile	Leu	Arg	Gly	Gln	Lys
			260					265					270		
Val	Lys	Thr	Gln	Leu	Val	Ser	Lys	Ser	Leu	Ala	Tyr	Ile	Glu	Arg	Asp
		275					280					285			
Val	Tyr	Arg	Pro	Lys	Phe	Leu	Ser	Lys	Thr	Val	Arg	Ile	Thr	Phe	Gly
	290					295					300				
Phe	Asn	Cys	Arg	Asn	Lys	Asp	His	Tyr	Gly	Ile	Met	Met	Tyr	His	Arg
305					310					315					320
Asn	Arg	Leu	Ile	Lys	Ala	Tyr	Glu	Lys	Val	Gly	Cys	Gln	Leu	Arg	Ala
				325					330						335
Asn	Asn	Met	Gly	Val	Gly	Val	Val	Gly	Ile	Ile	Glu	Cys	Asn	Phe	Leu
			340					345					350		
Lys	Pro	Thr	His	Asn	Lys	Gln	Asp	Phe	Asp	Tyr	Thr	Asn	Glu	Tyr	Arg
		355					360					365			
Leu	Thr	Ile	Thr	Ala	Leu	Gly	Glu	Lys	Leu	Asn	Asp	Tyr	Trp	Asn	Glu
	370					375					380				
Met	Lys	Val	Lys	Lys	Asn	Thr	Glu	Tyr	Pro	Leu	Asn	Leu	Pro	Val	Glu
385					390					395					400
Asp	Ile	Gln	Lys	Arg	Pro	Asp	Gln	Thr	Trp	Val	Gln	Cys	Asp	Ala	Cys
				405					410					415	
Leu	Lys	Trp	Arg	Lys	Leu	Pro	Asp	Gly	Met	Asp	Gln	Leu	Pro	Glu	Lys
			420					425					430		
Trp	Tyr	Cys	Ser	Asn	Asn	Pro	Asp	Pro	Gln	Phe	Arg	Asn	Cys	Glu	Val
		435					440					445			
Pro	Glu	Glu	Pro	Glu	Asp	Glu	Asp	Leu	Val	His	Pro	Thr	Tyr	Glu	Lys
	450					455					460				
Thr	Tyr	Lys	Lys	Thr	Asn	Lys	Glu	Lys	Phe	Arg	Ile	Arg	Gln	Pro	Glu
465					470					475					480
Met	Ile	Pro	Arg	Ile	Asn	Ala	Glu	Leu	Leu	Phe	Arg	Pro	Thr	Ala	Leu
				485					490					495	
Ser	Thr	Pro	Ser	Phe	Ser	Ser	Pro	Lys	Glu	Ser	Val	Pro	Arg	Arg	His
			500					505				510			
Leu	Ser	Glu	Gly	Thr	Asn	Ser	Tyr	Ala	Thr	Arg	Leu	Leu	Asn	Asn	His
		515					520					525			
Gln	Val	Pro	Pro	Gln	Ser	Glu	Pro	Glu	Ser	Asn	Ser	Leu	Lys	Arg	Arg
	530					535					540				
Leu	Ser	Thr	Arg	Ser	Ser	Ile	Leu	Asn	Ala	Lys	Asn	Arg	Arg	Leu	Ser
545					550					555					560
Ser	Gln	Phe	Glu	Asn	Ser	Val	Tyr	Lys	Gly	Asp	Asp	Asp	Asp	Glu	Asp
				565					570					575	
Val	Ile	Ile	Leu	Glu	Glu	Asn	Ser	Thr	Pro	Lys	Pro	Ala	Val	Asp	His
			580					585					590		
Asp	Ile	Asp	Met	Lys	Ser	Glu	Gln	Ser	His	Val	Glu	Gln	Gly	Gly	Val
		595					600					605			
Gln	Val	Glu	Phe	Val	Gly	Asp	Ser	Glu	Pro	Cys	Gly	Gln	Thr	Gly	Ser
	610					615					620				
Thr	Ser	Thr	Ser	Ser	Ser	Arg	Cys	Asp	Gln	Gly	Asn	Thr	Ala	Ala	Thr
625					630						635				640
Gln	Thr	Glu	Val	Pro	Ser	Leu	Val	Val	Lys	Lys	Lys	Lys	Thr	Val	Glu
				645					650					655	
Asp	Glu	Ile	Asp	Val	Arg	Asn	Asp	Ala	Val	Ile	Leu	Pro	Ser	Cys	Val
			660					665					670		
Glu	Ala	Glu	Ala	Lys	Ile	His	Glu	Thr	Gln	Glu	Thr	Thr	Asp	Lys	Ser
	675					680						685			
Ala	Asp	Asp	Ala	Gly	Cys	Gln	Leu	Gln	Glu	Leu	Arg	Asn	Gln	Leu	Leu
	690					695					700				
Leu	Val	Thr	Glu	Glu	Lys	Glu	Asn	Tyr	Lys	Arg	Gln	Cys	His	Met	Phe
705					710					715					720
Thr	Asp	Gln	Ile	Lys	Val	Leu	Gln	Gln	Arg	Ile	Leu	Glu	Met	Asn	Asp
				725					730					735	
Lys	Tyr	Val	Lys	Lys	Glu	Thr	Cys	His	Gln	Ser	Thr	Glu	Thr	Asp	Ala
			740					745						750	

Val Phe Leu Leu Glu Ser Ile Asn Gly Lys Ser Glu Ser Pro Asp His  
 755 760 765  
 Met Val Ser Gln Tyr Gln Gln Ala Leu Glu Glu Ile Glu Arg Leu Lys  
 770 775 780  
 Lys Gln Cys Ser Ala Leu Gln His Val Lys Ala Glu Cys Ser Gln Cys  
 785 790 795 800  
 Ser Asn Asn Glu Ser Lys Ser Glu Met Asp Glu Met Ala Val Gln Leu  
 805 810 815  
 Asp Asp Val Phe Arg Gln Leu Asp Lys Cys Ser Ile Glu Arg Asp Gln  
 820 825 830  
 Tyr Lys Ser Glu Val Glu Leu Leu Glu Met Glu Lys Ser Gln Ile Arg  
 835 840 845  
 Ser Gln Cys Glu Glu Leu Lys Thr Glu Val Glu Gln Leu Lys Ser Thr  
 850 855 860  
 Asn Gln Gln Thr Ala Thr Asp Val Ser Thr Ser Ser Asn Ile Glu Glu  
 865 870 875 880  
 Ser Val Asn His Met Asp Gly Glu Ser Leu Lys Leu Arg Ser Leu Arg  
 885 890 895  
 Val Asn Val Gly Gln Leu Leu Ala Met Ile Val Pro Asp Leu Asp Leu  
 900 905 910  
 Gln Gln Val Asn Tyr Asp Val Asp Val Val Asp Glu Ile Leu Gly Gln  
 915 920 925  
 Val Val Glu Gln Met Ser Glu Ile Ser Ser Thr \*  
 930 935 939

&lt;210&gt; 1538

&lt;211&gt; 666

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1538

Met Asp Arg Pro Ala Ala Ala Ala Ala Gly Cys Glu Gly Gly Gly  
 1 5 10 15  
 Gly Pro Asn Pro Gly Pro Ala Gly Gly Arg Arg Pro Pro Arg Ala Ala  
 20 25 30  
 Gly Gly Ala Thr Ala Gly Ser Arg Gln Pro Ser Val Glu Thr Leu Asp  
 35 40 45  
 Ser Pro Thr Gly Ser His Val Glu Trp Cys Lys Gln Leu Ile Ala Ala  
 50 55 60  
 Thr Ile Ser Ser Gln Ile Ser Gly Ser Val Thr Ser Glu Asn Val Ser  
 65 70 75 80  
 Arg Asp Tyr Lys Ala Leu Arg Asp Gly Asn Lys Leu Ala Gln Met Glu  
 85 90 95  
 Glu Ala Pro Leu Phe Pro Gly Glu Ser Ile Lys Ala Ile Val Lys Asp  
 100 105 110  
 Val Met Tyr Ile Cys Pro Phe Met Gly Ala Val Ser Gly Thr Leu Thr  
 115 120 125  
 Val Thr Asp Phe Lys Leu Tyr Phe Lys Asn Val Glu Arg Asp Pro His  
 130 135 140  
 Phe Ile Leu Asp Val Pro Leu Gly Val Ile Ser Arg Val Glu Lys Ile  
 145 150 155 160  
 Gly Ala Gln Ser His Gly Asp Asn Ser Cys Gly Ile Glu Ile Val Cys  
 165 170 175  
 Lys Asp Met Arg Asn Leu Arg Leu Ala Tyr Lys Gln Glu Glu Gln Ser  
 180 185 190  
 Lys Leu Gly Ile Phe Glu Asn Leu Asn Lys His Ala Phe Pro Leu Ser  
 195 200 205  
 Asn Gly Gln Ala Leu Phe Ala Phe Ser Tyr Lys Glu Lys Phe Pro Ile  
 210 215 220  
 Asn Gly Trp Lys Val Tyr Asp Pro Val Ser Glu Tyr Lys Arg Gln Gly  
 225 230 235 240

```

Leu Pro Asn Glu Ser Trp Lys Ile Ser Lys Ile Asn Ser Asn Tyr Glu
      245      250      255
Phe Cys Asp Thr Tyr Pro Ala Ile Ile Val Val Pro Thr Ser Val Lys
      260      265      270
Asp Asp Asp Leu Ser Lys Val Ala Ala Phe Arg Ala Lys Gly Arg Val
      275      280      285
Pro Val Leu Ser Trp Ile His Pro Glu Ser Gln Ala Thr Ile Thr Arg
      290      295      300
Cys Ser Gln Pro Leu Val Gly Pro Asn Asp Lys Arg Cys Lys Glu Asp
      305      310      315      320
Glu Lys Tyr Leu Gln Thr Ile Met Asp Ala Asn Ala Gln Ser His Lys
      325      330      335
Leu Ile Ile Phe Asp Ala Arg Gln Asn Ser Val Ala Asp Thr Asn Lys
      340      345      350
Thr Lys Gly Gly Gly Tyr Glu Ser Glu Ser Ala Tyr Pro Asn Ala Glu
      355      360      365
Leu Val Phe Leu Glu Ile His Asn Ile His Val Met Arg Glu Ser Leu
      370      375      380
Arg Lys Leu Lys Glu Ile Val Tyr Pro Ser Ile Asp Glu Ala Arg Trp
      385      390      395      400
Leu Ser Asn Val Asp Gly Thr His Trp Leu Glu Tyr Ile Arg Met Leu
      405      410      415
Leu Ala Gly Ala Val Arg Ile Ala Asp Lys Ile Glu Ser Gly Lys Thr
      420      425      430
Ser Val Val Val His Cys Ser Asp Gly Trp Asp Arg Thr Ala Gln Leu
      435      440      445
Thr Ser Leu Ala Met Leu Met Leu Asp Ser Tyr Tyr Arg Thr Ile Lys
      450      455      460
Gly Phe Glu Thr Leu Val Glu Lys Glu Trp Ile Ser Phe Gly His Arg
      465      470      475      480
Phe Ala Leu Arg Val Gly His Gly Asn Asp Asn His Ala Asp Ala Asp
      485      490      495
Arg Ser Pro Ile Phe Leu Gln Phe Val Asp Cys Val Trp Gln Met Thr
      500      505      510
Arg Gln Phe Pro Ser Ala Phe Glu Phe Asn Glu Leu Phe Leu Ile Thr
      515      520      525
Ile Leu Asp His Leu Tyr Ser Cys Leu Phe Gly Thr Phe Leu Cys Asn
      530      535      540
Cys Glu Gln Gln Arg Phe Lys Glu Asp Val Tyr Thr Lys Thr Ile Ser
      545      550      555      560
Leu Trp Ser Tyr Ile Asn Ser Gln Leu Asp Glu Phe Ser Asn Pro Phe
      565      570      575
Phe Val Asn Tyr Glu Asn His Val Leu Tyr Pro Val Ala Ser Leu Ser
      580      585      590
His Leu Glu Leu Trp Val Asn Tyr Tyr Val Arg Trp Asn Pro Arg Met
      595      600      605
Arg Pro Gln Met Pro Ile His Gln Asn Leu Lys Glu Leu Leu Ala Val
      610      615      620
Arg Ala Glu Leu Gln Lys Arg Val Glu Gly Leu Gln Arg Glu Val Ala
      625      630      635      640
Thr Arg Ala Val Ser Ser Ser Ser Glu Arg Gly Ser Ser Pro Ser His
      645      650      655
Ser Ala Thr Ser Val His Thr Ser Val *
      660      665

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<210> 1539  
 <211> 336  
 <212> PRT  
 <213> Homo sapiens

<400> 1539

```

Met Glu Glu Pro Ala Pro Tyr Thr Asp Ser Thr Gly Ala Ala Ala Gly
 1          5          10          15
Gly Gly Asn Cys Arg Phe Val Glu Ser Pro Ser Gln Asp Gln Arg Leu
          20          25          30
Gln Ala Gln Arg Leu Arg Asn Pro Asp Val Arg Gly Ser Leu Gln Thr
          35          40          45
Pro Gln Asn Arg Pro His Gly His Gln Ser Pro Glu Leu Pro Glu Gly
          50          55          60
Tyr Glu Gln Arg Thr Thr Val Gln Gly Gln Val Tyr Phe Leu His Thr
          65          70          75          80
Gln Thr Gly Val Ser Thr Trp His Asp Pro Arg Ile Pro Arg Asp Leu
          85          90          95
Asn Ser Val Asn Cys Asp Glu Leu Gly Pro Leu Pro Pro Gly Trp Glu
          100          105          110
Val Arg Ser Thr Val Ser Gly Arg Ile Tyr Phe Val Asp His Asn Asn
          115          120          125
Arg Thr Thr Gln Phe Thr Asp Pro Arg Leu His His Ile Met Asn His
          130          135          140
Gln Cys Gln Leu Lys Glu Pro Ser Gln Pro Leu Pro Leu Pro Ser Glu
          145          150          155          160
Gly Ser Leu Glu Asp Glu Glu Leu Pro Ala Gln Arg Tyr Glu Arg Asp
          165          170          175
Leu Val Gln Lys Leu Lys Val Leu Arg His Glu Leu Ser Leu Gln Gln
          180          185          190
Pro Gln Ala Gly His Cys Arg Ile Glu Val Ser Arg Glu Glu Ile Phe
          195          200          205
Glu Glu Ser Tyr Arg Gln Ile Met Lys Met Arg Pro Lys Asp Leu Lys
          210          215          220
Lys Arg Leu Met Val Lys Phe Arg Gly Glu Glu Gly Leu Asp Tyr Gly
          225          230          235          240
Gly Val Ala Arg Glu Trp Leu Tyr Leu Leu Cys His Glu Met Leu Asn
          245          250          255
Pro Tyr Tyr Gly Leu Phe Gln Tyr Ser Thr Asp Asn Ile Tyr Met Leu
          260          265          270
Gln Ile Asn Pro Asp Ser Ser Ile Asn Pro Asp His Leu Ser Tyr Phe
          275          280          285
His Phe Val Gly Arg Ile Met Gly Leu Gly Cys Val Pro Trp Thr Leu
          290          295          300
His Gln Arg Gly Leu His Ser Ala Leu Leu Gln Ala Ala Ala Gly Glu
          305          310          315          320
Ala His Pro Ala Leu Arg Ser Gly Ile Cys Gly Pro Arg Ala Ala *
          325          330          335

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<210> 1540
<211> 2068
<212> PRT
<213> Homo sapiens

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```

<400> 1540
Met Val Gln Met Val Cys His Leu Leu Glu Cys Leu Leu Thr Thr Glu
 1          5          10          15
Asp Ile Pro Ala Asp Cys Pro Lys Glu Ile Tyr Glu His Tyr Phe Val
          20          25          30
Phe Ala Ala Ile Trp Ala Phe Gly Gly Ala Met Val Gln Asp Gln Leu
          35          40          45
Val Asp Tyr Arg Ala Glu Phe Ser Lys Trp Trp Leu Thr Glu Phe Lys
          50          55          60
Thr Val Lys Phe Pro Ser Gln Gly Thr Ile Phe Asp Tyr Tyr Ile Asp
          65          70          75          80
Pro Glu Thr Lys Lys Phe Glu Pro Trp Ser Lys Leu Val Pro Gln Phe
          85          90          95

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Glu	Phe	Asp	Pro	Glu	Met	Pro	Leu	Gln	Ala	Cys	Leu	Val	His	Thr	Ser	100	105	110
Glu	Thr	Ile	Arg	Val	Cys	Tyr	Phe	Met	Glu	Arg	Leu	Met	Ala	Arg	Gln	115	120	125
Arg	Pro	Val	Met	Leu	Val	Gly	Thr	Ala	Gly	Thr	Gly	Lys	Ser	Val	Leu	130	135	140
Val	Gly	Ala	Lys	Leu	Ala	Ser	Leu	Asp	Pro	Glu	Ala	Tyr	Leu	Val	Lys	145	150	155
Asn	Val	Pro	Phe	Asn	Tyr	Tyr	Thr	Thr	Ser	Ala	Met	Leu	Gln	Ala	Val	165	170	175
Leu	Glu	Lys	Pro	Leu	Glu	Lys	Lys	Ala	Gly	Arg	Asn	Tyr	Gly	Pro	Pro	180	185	190
Gly	Asn	Lys	Lys	Leu	Ile	Tyr	Phe	Ile	Asp	Asp	Met	Asn	Met	Pro	Glu	195	200	205
Val	Asp	Ala	Tyr	Gly	Thr	Val	Gln	Pro	His	Thr	Ile	Ile	Arg	Gln	His	210	215	220
Leu	Asp	Tyr	Gly	His	Trp	Tyr	Asp	Arg	Ser	Lys	Leu	Ser	Leu	Lys	Glu	225	230	235
Ile	Thr	Asn	Val	Gln	Tyr	Val	Ser	Cys	Met	Asn	Pro	Thr	Ala	Gly	Ser	245	250	255
Phe	Thr	Ile	Asn	Pro	Arg	Leu	Gln	Arg	His	Phe	Ser	Val	Phe	Val	Leu	260	265	270
Ser	Phe	Pro	Gly	Ala	Asp	Ala	Leu	Ser	Ser	Ile	Tyr	Ser	Ile	Ile	Leu	275	280	285
Thr	Gln	His	Leu	Lys	Leu	Gly	Asn	Phe	Pro	Ala	Ser	Leu	Gln	Lys	Ser	290	295	300
Ile	Pro	Pro	Leu	Ile	Asp	Leu	Ala	Leu	Ala	Phe	His	Gln	Lys	Ile	Ala	305	310	315
Thr	Thr	Phe	Leu	Pro	Thr	Gly	Ile	Lys	Phe	His	Tyr	Ile	Phe	Asn	Leu	325	330	335
Arg	Asp	Phe	Ala	Asn	Ile	Phe	Gln	Gly	Ile	Leu	Phe	Ser	Ser	Val	Glu	340	345	350
Cys	Val	Lys	Ser	Thr	Trp	Asp	Leu	Ile	Arg	Leu	Tyr	Leu	His	Glu	Ser	355	360	365
Asn	Arg	Val	Tyr	Arg	Asp	Lys	Met	Val	Glu	Glu	Lys	Asp	Phe	Asp	Leu	370	375	380
Phe	Asp	Lys	Ile	Gln	Thr	Glu	Val	Leu	Lys	Lys	Thr	Phe	Asp	Asp	Ile	385	390	395
Glu	Asp	Pro	Val	Glu	Gln	Thr	Gln	Ser	Pro	Asn	Leu	Tyr	Cys	His	Phe	405	410	415
Ala	Asn	Gly	Ile	Gly	Glu	Pro	Lys	Tyr	Met	Pro	Val	Gln	Ser	Trp	Glu	420	425	430
Leu	Leu	Thr	Gln	Thr	Leu	Val	Glu	Ala	Leu	Glu	Asn	His	Asn	Glu	Val	435	440	445
Asn	Thr	Val	Met	Asp	Leu	Val	Leu	Phe	Glu	Asp	Ala	Met	Arg	His	Val	450	455	460
Cys	His	Ile	Asn	Arg	Ile	Leu	Glu	Ser	Pro	Arg	Gly	Asn	Ala	Leu	Leu	465	470	475
Val	Gly	Val	Gly	Gly	Ser	Gly	Lys	Gln	Ser	Leu	Thr	Arg	Leu	Ala	Ala	485	490	495
Phe	Ile	Ser	Ser	Met	Asp	Val	Phe	Gln	Ile	Thr	Leu	Arg	Lys	Gly	Tyr	500	505	510
Gln	Ile	Gln	Asp	Phe	Lys	Met	Asp	Leu	Ala	Ser	Leu	Cys	Leu	Lys	Ala	515	520	525
Gly	Val	Lys	Asn	Leu	Asn	Thr	Val	Phe	Leu	Met	Thr	Asp	Ala	Gln	Val	530	535	540
Ala	Asp	Glu	Arg	Phe	Leu	Val	Leu	Ile	Asn	Asp	Leu	Leu	Ala	Ser	Gly	545	550	555
Glu	Ile	Pro	Asp	Leu	Tyr	Ser	Asp	Asp	Glu	Val	Glu	Asn	Ile	Ile	Ser	565	570	575
Asn	Val	Arg	Asn	Glu	Val	Lys	Ser	Gln	Gly	Leu	Val	Asp	Asn	Arg	Glu	580	585	590
Asn	Cys	Trp	Lys	Phe	Phe	Ile	Asp	Arg	Ile	Arg	Arg	Gln	Leu	Lys	Val	595	600	605

Thr Leu Cys Phe Ser Pro Val Gly Asn Lys Leu Arg Val Arg Ser Arg  
 610 615 620  
 Lys Phe Pro Ala Ile Val Asn Cys Thr Ala Ile His Trp Phe His Glu  
 625 630 635 640  
 Trp Pro Gln Gln Ala Leu Glu Ser Val Ser Leu Arg Phe Leu Gln Asn  
 645 650 655  
 Thr Glu Gly Ile Glu Pro Thr Val Lys Gln Ser Ile Ser Lys Phe Met  
 660 665 670  
 Ala Phe Val His Thr Ser Val Asn Gln Thr Ser Gln Ser Tyr Leu Ser  
 675 680 685  
 Asn Glu Gln Arg Tyr Asn Tyr Thr Thr Pro Lys Ser Phe Leu Glu Phe  
 690 695 700  
 Ile Arg Leu Tyr Gln Ser Leu Leu His Arg His Arg Lys Glu Leu Lys  
 705 710 715 720  
 Cys Lys Thr Glu Arg Leu Glu Asn Gly Leu Leu Lys Leu His Ser Thr  
 725 730 735  
 Ser Ala Gln Val Asp Asp Leu Lys Ala Lys Leu Ala Ala Gln Glu Val  
 740 745 750  
 Glu Leu Lys Gln Lys Asn Glu Asp Ala Asp Lys Leu Ile Gln Val Val  
 755 760 765  
 Gly Val Glu Thr Asp Lys Val Ser Arg Glu Lys Ala Met Ala Asp Glu  
 770 775 780  
 Glu Glu Gln Lys Val Ala Val Ile Met Leu Glu Val Lys Gln Lys Gln  
 785 790 795 800  
 Lys Asp Cys Glu Glu Asp Leu Ala Lys Ala Glu Pro Ala Leu Thr Ala  
 805 810 815  
 Ala Gln Ala Ala Leu Asn Thr Leu Asn Lys Thr Asn Leu Thr Glu Leu  
 820 825 830  
 Lys Ser Phe Gly Ser Pro Pro Leu Ala Val Ser Asn Val Ser Ala Ala  
 835 840 845  
 Val Met Val Leu Met Ala Pro Arg Gly Arg Val Pro Lys Asp Arg Ser  
 850 855 860  
 Trp Lys Ala Ala Lys Val Thr Met Ala Lys Val Asp Gly Phe Leu Asp  
 865 870 875 880  
 Ser Leu Ile Asn Phe Asn Lys Glu Asn Ile His Glu Asn Cys Leu Lys  
 885 890 895  
 Ala Ile Arg Pro Tyr Leu Gln Asp Pro Glu Phe Asn Pro Glu Phe Val  
 900 905 910  
 Ala Thr Lys Ser Tyr Ala Ala Ala Gly Leu Cys Ser Trp Val Ile Asn  
 915 920 925  
 Ile Val Arg Phe Tyr Glu Val Phe Cys Asp Val Glu Pro Lys Arg Gln  
 930 935 940  
 Ala Leu Asn Lys Ala Thr Ala Asp Leu Thr Ala Ala Gln Glu Lys Leu  
 945 950 955 960  
 Ala Ala Ile Lys Ala Lys Ile Ala His Leu Asn Glu Asn Leu Ala Lys  
 965 970 975  
 Leu Thr Ala Arg Phe Glu Lys Ala Thr Ala Asp Lys Leu Lys Cys Gln  
 980 985 990  
 Gln Glu Ala Glu Val Thr Ala Val Thr Ile Ser Leu Ala Asn Arg Leu  
 995 1000 1005  
 Val Gly Gly Leu Ala Ser Glu Asn Val Arg Trp Ala Asp Ala Val Gln  
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 Asn Phe Lys Gln Gln Glu Arg Thr Leu Cys Gly Asp Ile Leu Leu Ile  
 1025 1030 1035 1040  
 Thr Ala Phe Ile Ser Tyr Leu Gly Phe Phe Thr Lys Lys Tyr Arg Gln  
 1045 1050 1055  
 Ser Leu Leu Asp Arg Thr Trp Arg Pro Tyr Leu Ser Gln Leu Lys Thr  
 1060 1065 1070  
 Pro Ile Pro Val Thr Pro Ala Leu Asp Pro Leu Arg Met Leu Met Asp  
 1075 1080 1085  
 Asp Ala Asp Val Ala Ala Trp Gln Asn Glu Gly Leu Pro Ala Asp Arg  
 1090 1095 1100  
 Met Ser Val Glu Asn Ala Thr Ile Leu Ile Asn Cys Glu Arg Trp Pro  
 1105 1110 1115 1120



Leu Met Val Asp Pro Gln Leu Gln Gly Ile Lys Trp Ile Lys Asn Lys  
 1125 1130 1135  
 Tyr Gly Glu Asp Leu Arg Val Thr Gln Ile Gly Gln Lys Gly Tyr Leu  
 1140 1145 1150  
 Gln Ile Ile Glu Gln Ala Leu Glu Ala Gly Ala Val Val Leu Ile Glu  
 1155 1160 1165  
 Asn Leu Glu Glu Ser Ile Asp Pro Val Leu Gly Pro Leu Leu Gly Arg  
 1170 1175 1180  
 Glu Val Ile Lys Lys Gly Arg Phe Ile Lys Ile Gly Asp Lys Glu Cys  
 1185 1190 1195 1200  
 Glu Tyr Asn Pro Lys Phe Arg Leu Ile Leu His Thr Lys Leu Ala Asn  
 1205 1210 1215  
 Pro His Tyr Gln Pro Glu Leu Gln Ala Gln Ala Thr Leu Ile Asn Phe  
 1220 1225 1230  
 Thr Val Thr Arg Asp Gly Leu Glu Asp Gln Leu Leu Ala Ala Val Val  
 1235 1240 1245  
 Ser Met Glu Arg Pro Asp Leu Glu Gln Leu Lys Ser Asp Leu Thr Lys  
 1250 1255 1260  
 Gln Gln Asn Gly Phe Lys Ile Thr Leu Lys Thr Leu Glu Asp Ser Leu  
 1265 1270 1275 1280  
 Leu Ser Arg Leu Ser Ser Ala Ser Gly Asn Phe Leu Gly Glu Thr Val  
 1285 1290 1295  
 Leu Val Glu Asn Leu Glu Ile Thr Lys Gln Thr Ala Ala Glu Val Glu  
 1300 1305 1310  
 Lys Lys Val Gln Glu Ala Lys Val Thr Glu Val Lys Ile Asn Glu Ala  
 1315 1320 1325  
 Arg Glu His Tyr Arg Pro Ala Ala Ala Arg Ala Ser Leu Leu Tyr Phe  
 1330 1335 1340  
 Ile Met Asn Asp Leu Ser Lys Ile His Pro Met Tyr Gln Phe Ser Leu  
 1345 1350 1355 1360  
 Lys Ala Phe Ser Ile Val Phe Gln Lys Ala Val Glu Arg Ala Ala Pro  
 1365 1370 1375  
 Asp Glu Ser Leu Arg Glu Arg Val Ala Asn Leu Ile Asp Ser Ile Thr  
 1380 1385 1390  
 Phe Ser Val Tyr Gln Tyr Thr Ile Arg Gly Leu Phe Glu Cys Asp Lys  
 1395 1400 1405  
 Leu Thr Tyr Leu Ala Gln Leu Thr Phe Gln Ile Leu Leu Met Asn Arg  
 1410 1415 1420  
 Glu Val Asn Ala Val Glu Leu Asp Phe Leu Leu Arg Ser Pro Val Gln  
 1425 1430 1435 1440  
 Thr Gly Thr Ala Ser Pro Val Glu Phe Leu Ser His Gln Ala Trp Gly  
 1445 1450 1455  
 Ala Val Lys Val Leu Ser Ser Met Glu Glu Phe Ser Asn Leu Asp Arg  
 1460 1465 1470  
 Asp Ile Glu Gly Ser Ala Lys Ser Trp Lys Lys Phe Val Glu Ser Glu  
 1475 1480 1485  
 Cys Pro Glu Lys Glu Lys Leu Pro Gln Glu Trp Lys Asn Lys Thr Ala  
 1490 1495 1500  
 Leu Gln Arg Leu Cys Met Leu Arg Ala Met Arg Pro Asp Arg Met Thr  
 1505 1510 1515 1520  
 Tyr Ala Leu Arg Asp Phe Val Glu Glu Lys Leu Gly Ser Lys Tyr Val  
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 Val Gly Arg Ala Leu Asp Phe Ala Thr Ser Phe Glu Glu Ser Gly Pro  
 1540 1545 1550  
 Ala Thr Pro Met Phe Phe Ile Leu Ser Pro Gly Val Asp Pro Leu Lys  
 1555 1560 1565  
 Asp Val Glu Ser Gln Gly Arg Lys Leu Gly Tyr Thr Phe Asn Asn Gln  
 1570 1575 1580  
 Asn Phe His Asn Val Ser Leu Gly Gln Gly Gln Glu Val Val Ala Glu  
 1585 1590 1595 1600  
 Ala Ala Leu Asp Leu Ala Ala Lys Lys Gly His Trp Val Ile Leu Gln  
 1605 1610 1615  
 Asn Thr Leu Glu Met Cys Ser Arg Glu Thr Glu Phe Lys Ser Ile Leu  
 1620 1625 1630

Phe Ala Leu Cys Tyr Phe His Ala Val Val Ala Glu Arg Arg Lys Phe  
 1635 1640 1645  
 Gly Pro Gln Gly Trp Asn Arg Ser Tyr Pro Phe Asn Thr Gly Asp Leu  
 1650 1655 1660  
 Thr Ile Ser Val Asn Val Leu Tyr Asn Phe Leu Glu Ala Asn Ala Lys  
 1665 1670 1675 1680  
 Val Pro Tyr Asp Asp Leu Arg Tyr Leu Phe Gly Glu Ile Met Tyr Gly  
 1685 1690 1695  
 Gly His Ile Thr Asp Asp Trp Asp Arg Arg Leu Cys Arg Thr Tyr Leu  
 1700 1705 1710  
 Gly Glu Phe Ile Arg Pro Glu Met Leu Glu Gly Glu Leu Ser Leu Ala  
 1715 1720 1725  
 Pro Gly Phe Pro Leu Pro Gly Asn Met Asp Tyr Asn Gly Tyr His Gln  
 1730 1735 1740  
 Tyr Ile Asp Ala Glu Leu Pro Pro Glu Ser Pro Tyr Leu Tyr Gly Leu  
 1745 1750 1755 1760  
 His Pro Asn Ala Glu Ile Gly Phe Leu Thr Gln Thr Ser Glu Lys Leu  
 1765 1770 1775  
 Phe Arg Thr Val Leu Glu Leu Gln Pro Arg Asp Ser Gln Ala Arg Asp  
 1780 1785 1790  
 Gly Ala Gly Ala Thr Arg Glu Glu Lys Val Lys Ala Leu Leu Glu Glu  
 1795 1800 1805  
 Ile Leu Glu Arg Val Thr Asp Glu Phe Asn Ile Pro Glu Leu Met Ala  
 1810 1815 1820  
 Lys Val Glu Glu Arg Thr Pro Tyr Ile Val Val Ala Phe Gln Glu Cys  
 1825 1830 1835 1840  
 Gly Arg Met Asn Ile Leu Thr Arg Glu Ile Gln Arg Ser Leu Arg Glu  
 1845 1850 1855  
 Leu Glu Leu Gly Leu Lys Gly Glu Leu Thr Met Thr Ser His Met Glu  
 1860 1865 1870  
 Asn Leu Gln Asn Ala Leu Tyr Phe Asp Met Val Pro Glu Ser Trp Ala  
 1875 1880 1885  
 Arg Arg Ala Tyr Pro Ser Thr Ala Gly Leu Ala Ala Trp Phe Pro Asp  
 1890 1895 1900  
 Leu Leu Asn Arg Ile Lys Glu Leu Glu Ala Trp Thr Gly Asp Phe Thr  
 1905 1910 1915 1920  
 Met Pro Ser Thr Val Trp Leu Thr Gly Phe Phe Asn Pro Gln Ser Phe  
 1925 1930 1935  
 Leu Thr Ala Ile Met Gln Ser Thr Ala Arg Lys Asn Glu Trp Pro Leu  
 1940 1945 1950  
 Asp Gln Met Ala Leu Gln Cys Asp Met Thr Lys Lys Asn Arg Glu Glu  
 1955 1960 1965  
 Phe Arg Ser Pro Pro Arg Glu Gly Ala Tyr Ile His Gly Leu Phe Met  
 1970 1975 1980  
 Glu Gly Ala Cys Trp Asp Thr Gln Ala Gly Ile Ile Thr Glu Ala Lys  
 1985 1990 1995 2000  
 Leu Lys Asp Leu Thr Pro Pro Met Pro Val Met Phe Ile Lys Ala Ile  
 2005 2010 2015  
 Pro Ala Asp Lys Gln Asp Cys Arg Ser Val Tyr Ser Cys Pro Val Tyr  
 2020 2025 2030  
 Lys Thr Ser Gln Arg Gly Pro Thr Tyr Val Trp Thr Phe Asn Leu Lys  
 2035 2040 2045  
 Thr Lys Glu Asn Pro Ser Lys Trp Val Leu Ala Gly Val Ala Leu Leu  
 2050 2055 2060  
 Leu Gln Ile \*  
 2065 2067

&lt;210&gt; 1541

&lt;211&gt; 2143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<400> 1541

Met	Val	Gln	Met	Val	Cys	His	Leu	Leu	Glu	Cys	Leu	Leu	Thr	Thr	Glu
1				5					10					15	
Asp	Ile	Pro	Ala	Asp	Cys	Pro	Lys	Glu	Ile	Tyr	Glu	His	Tyr	Phe	Val
			20					25					30		
Phe	Ala	Ala	Ile	Trp	Ala	Phe	Gly	Gly	Ala	Met	Val	Gln	Asp	Gln	Leu
			35				40					45			
Val	Asp	Tyr	Arg	Ala	Glu	Phe	Ser	Lys	Trp	Trp	Leu	Thr	Glu	Phe	Lys
	50					55					60				
Thr	Val	Lys	Phe	Pro	Ser	Gln	Gly	Thr	Ile	Phe	Asp	Tyr	Tyr	Ile	Asp
	65				70					75					80
Pro	Glu	Thr	Lys	Lys	Phe	Glu	Pro	Trp	Ser	Lys	Leu	Val	Pro	Gln	Phe
				85				90						95	
Glu	Phe	Asp	Pro	Glu	Met	Pro	Leu	Gln	Ala	Cys	Leu	Val	His	Thr	Ser
			100					105					110		
Glu	Thr	Ile	Arg	Val	Cys	Tyr	Phe	Met	Glu	Arg	Leu	Met	Ala	Arg	Gln
	115						120					125			
Arg	Pro	Val	Met	Leu	Val	Gly	Thr	Ala	Gly	Thr	Gly	Lys	Ser	Val	Leu
	130					135					140				
Val	Gly	Ala	Lys	Leu	Ala	Ser	Leu	Asp	Pro	Glu	Ala	Tyr	Leu	Val	Lys
	145				150					155					160
Asn	Val	Pro	Phe	Asn	Tyr	Tyr	Thr	Thr	Ser	Ala	Met	Leu	Gln	Ala	Val
				165					170					175	
Leu	Glu	Lys	Pro	Leu	Glu	Lys	Lys	Ala	Gly	Arg	Asn	Tyr	Gly	Pro	Pro
			180					185					190		
Gly	Asn	Lys	Lys	Leu	Ile	Tyr	Phe	Ile	Asp	Asp	Met	Asn	Met	Pro	Glu
	195					200						205			
Val	Asp	Ala	Tyr	Gly	Thr	Val	Gln	Pro	His	Thr	Ile	Ile	Arg	Gln	His
	210					215					220				
Leu	Asp	Tyr	Gly	His	Trp	Tyr	Asp	Arg	Ser	Lys	Leu	Ser	Leu	Lys	Glu
	225				230					235					240
Ile	Thr	Asn	Val	Gln	Tyr	Val	Ser	Cys	Met	Asn	Pro	Thr	Ala	Gly	Ser
				245					250					255	
Phe	Thr	Ile	Asn	Pro	Arg	Leu	Gln	Arg	His	Phe	Ser	Val	Phe	Val	Leu
			260					265					270		
Ser	Phe	Pro	Gly	Ala	Asp	Ala	Leu	Ser	Ser	Ile	Tyr	Ser	Ile	Ile	Leu
		275				280						285			
Thr	Gln	His	Leu	Lys	Leu	Gly	Asn	Phe	Pro	Ala	Ser	Leu	Gln	Lys	Ser
	290					295					300				
Ile	Pro	Pro	Leu	Ile	Asp	Leu	Ala	Leu	Ala	Phe	His	Gln	Lys	Ile	Ala
	305				310					315					320
Thr	Thr	Phe	Leu	Pro	Thr	Gly	Ile	Lys	Phe	His	Tyr	Ile	Phe	Asn	Leu
				325					330					335	
Arg	Asp	Phe	Ala	Asn	Ile	Phe	Gln	Gly	Ile	Leu	Phe	Ser	Ser	Val	Glu
			340					345					350		
Cys	Val	Lys	Ser	Thr	Trp	Asp	Leu	Ile	Arg	Leu	Tyr	Leu	His	Glu	Ser
		355				360						365			
Asn	Arg	Val	Tyr	Arg	Asp	Lys	Met	Val	Glu	Glu	Lys	Asp	Phe	Asp	Leu
	370					375						380			
Phe	Asp	Lys	Ile	Gln	Thr	Glu	Val	Leu	Lys	Lys	Thr	Phe	Asp	Asp	Ile
	385				390					395					400
Glu	Asp	Pro	Val	Glu	Gln	Thr	Gln	Ser	Pro	Asn	Leu	Tyr	Cys	His	Phe
				405					410					415	
Ala	Asn	Gly	Ile	Gly	Glu	Pro	Lys	Tyr	Met	Pro	Val	Gln	Ser	Trp	Glu
			420					425					430		
Leu	Leu	Thr	Gln	Thr	Leu	Val	Glu	Ala	Leu	Glu	Asn	His	Asn	Glu	Val
		435				440						445			
Asn	Thr	Val	Met	Asp	Leu	Val	Leu	Phe	Glu	Asp	Ala	Met	Arg	His	Val
	450					455					460				
Cys	His	Ile	Asn	Arg	Ile	Leu	Glu	Ser	Pro	Arg	Gly	Asn	Ala	Leu	Leu
	465				470					475					480
Val	Gly	Val	Gly	Gly	Ser	Gly	Lys	Gln	Ser	Leu	Thr	Arg	Leu	Ala	Ala
				485					490					495	

Phe	Ile	Ser	Ser	Met	Asp	Val	Phe	Gln	Ile	Thr	Leu	Arg	Lys	Gly	Tyr
			500					505					510		
Gln	Ile	Gln	Asp	Phe	Lys	Met	Asp	Leu	Ala	Ser	Leu	Cys	Leu	Lys	Ala
		515					520					525			
Gly	Val	Lys	Asn	Leu	Asn	Thr	Val	Phe	Leu	Met	Thr	Asp	Ala	Gln	Val
	530					535					540				
Ala	Asp	Glu	Arg	Phe	Leu	Val	Leu	Ile	Asn	Asp	Leu	Leu	Ala	Ser	Gly
545					550					555					560
Glu	Ile	Pro	Asp	Leu	Tyr	Ser	Asp	Asp	Glu	Val	Glu	Asn	Ile	Ile	Ser
				565					570					575	
Asn	Val	Arg	Asn	Glu	Val	Lys	Ser	Gln	Gly	Leu	Val	Asp	Asn	Arg	Glu
			580					585					590		
Asn	Cys	Trp	Lys	Phe	Phe	Ile	Asp	Arg	Ile	Arg	Arg	Gln	Leu	Lys	Val
	595						600					605			
Thr	Leu	Cys	Phe	Ser	Pro	Val	Gly	Asn	Lys	Leu	Arg	Val	Arg	Ser	Arg
	610					615					620				
Lys	Phe	Pro	Ala	Ile	Val	Asn	Cys	Thr	Ala	Ile	His	Trp	Phe	His	Glu
625					630					635					640
Trp	Pro	Gln	Gln	Ala	Leu	Glu	Ser	Val	Ser	Leu	Arg	Phe	Leu	Gln	Asn
				645					650					655	
Thr	Glu	Gly	Ile	Glu	Pro	Thr	Val	Lys	Gln	Ser	Ile	Ser	Lys	Phe	Met
			660					665					670		
Ala	Phe	Val	His	Thr	Ser	Val	Asn	Gln	Thr	Ser	Gln	Ser	Tyr	Leu	Ser
	675						680					685			
Asn	Glu	Gln	Arg	Tyr	Asn	Tyr	Thr	Thr	Pro	Lys	Ser	Phe	Leu	Glu	Phe
	690				695						700				
Ile	Arg	Leu	Tyr	Gln	Ser	Leu	Leu	His	Arg	His	Arg	Lys	Glu	Leu	Lys
705					710					715					720
Cys	Lys	Thr	Glu	Arg	Leu	Glu	Asn	Gly	Leu	Leu	Lys	Leu	His	Ser	Thr
				725					730					735	
Ser	Ala	Gln	Val	Asp	Asp	Leu	Lys	Ala	Lys	Leu	Ala	Ala	Gln	Glu	Val
			740					745					750		
Glu	Leu	Lys	Gln	Lys	Asn	Glu	Asp	Ala	Asp	Lys	Leu	Ile	Gln	Val	Val
	755						760					765			
Gly	Val	Glu	Thr	Asp	Lys	Val	Ser	Arg	Glu	Lys	Ala	Met	Ala	Asp	Glu
	770					775					780				
Glu	Glu	Gln	Lys	Val	Ala	Val	Ile	Met	Leu	Glu	Val	Lys	Gln	Lys	Gln
785					790					795					800
Lys	Asp	Cys	Glu	Glu	Asp	Leu	Ala	Lys	Ala	Glu	Pro	Ala	Leu	Thr	Ala
					805				810					815	
Ala	Gln	Ala	Ala	Leu	Asn	Thr	Leu	Asn	Lys	Thr	Asn	Leu	Thr	Glu	Leu
			820					825					830		
Lys	Ser	Phe	Gly	Ser	Pro	Pro	Leu	Ala	Val	Ser	Asn	Val	Ser	Ala	Ala
	835						840					845			
Val	Met	Val	Leu	Met	Ala	Pro	Arg	Gly	Arg	Val	Pro	Lys	Asp	Arg	Ser
	850					855					860				
Trp	Lys	Ala	Ala	Lys	Val	Thr	Met	Ala	Lys	Val	Asp	Gly	Phe	Leu	Asp
865					870					875					880
Ser	Leu	Ile	Asn	Phe	Asn	Lys	Glu	Asn	Ile	His	Glu	Asn	Cys	Leu	Lys
				885					890					895	
Ala	Ile	Arg	Pro	Tyr	Leu	Gln	Asp	Pro	Glu	Phe	Asn	Pro	Glu	Phe	Val
			900					905					910		
Ala	Thr	Lys	Ser	Tyr	Ala	Ala	Ala	Gly	Leu	Cys	Ser	Trp	Val	Ile	Asn
	915						920					925			
Ile	Val	Arg	Phe	Tyr	Glu	Val	Phe	Cys	Asp	Val	Glu	Pro	Lys	Arg	Gln
	930					935					940				
Ala	Leu	Asn	Lys	Ala	Thr	Ala	Asp	Leu	Thr	Ala	Ala	Gln	Glu	Lys	Leu
945					950					955					960
Ala	Ala	Ile	Lys	Ala	Lys	Ile	Ala	His	Leu	Asn	Glu	Asn	Leu	Ala	Lys
				965					970					975	
Leu	Thr	Ala	Arg	Phe	Glu	Lys	Ala	Thr	Ala	Asp	Lys	Leu	Lys	Cys	Gln
			980					985					990		
Gln	Glu	Ala	Glu	Val	Thr	Ala	Val	Thr	Ile	Ser	Leu	Ala	Asn	Arg	Leu
			995				1000						1005		

Val Gly Gly Leu Ala Ser Glu Asn Val Arg Trp Ala Asp Ala Val Gln  
 1010 1015 1020  
 Asn Phe Lys Gln Gln Glu Arg Thr Leu Cys Gly Asp Ile Leu Leu Ile  
 1025 1030 1035 1040  
 Thr Ala Phe Ile Ser Tyr Leu Gly Phe Phe Thr Lys Lys Tyr Arg Gln  
 1045 1050 1055  
 Ser Leu Leu Asp Arg Thr Trp Arg Pro Tyr Leu Ser Gln Leu Lys Thr  
 1060 1065 1070  
 Pro Ile Pro Val Thr Pro Ala Leu Asp Pro Leu Arg Met Leu Met Asp  
 1075 1080 1085  
 Asp Ala Asp Val Ala Ala Trp Gln Asn Glu Gly Leu Pro Ala Asp Arg  
 1090 1095 1100  
 Met Ser Val Glu Asn Ala Thr Ile Leu Ile Asn Cys Glu Arg Trp Pro  
 1105 1110 1115 1120  
 Leu Met Val Asp Pro Gln Leu Gln Gly Ile Lys Trp Ile Lys Asn Lys  
 1125 1130 1135  
 Tyr Gly Glu Asp Leu Arg Val Thr Gln Ile Gly Gln Lys Gly Tyr Leu  
 1140 1145 1150  
 Gln Ile Ile Glu Gln Ala Leu Glu Ala Gly Ala Val Val Leu Ile Glu  
 1155 1160 1165  
 Asn Leu Glu Glu Ser Ile Asp Pro Val Leu Gly Pro Leu Leu Gly Arg  
 1170 1175 1180  
 Glu Val Ile Lys Lys Gly Arg Phe Ile Lys Ile Gly Asp Lys Glu Cys  
 1185 1190 1195 1200  
 Glu Tyr Asn Pro Lys Phe Arg Leu Ile Leu His Thr Lys Leu Ala Asn  
 1205 1210 1215  
 Pro His Tyr Gln Pro Glu Leu Gln Ala Gln Ala Thr Leu Ile Asn Phe  
 1220 1225 1230  
 Thr Val Thr Arg Asp Gly Leu Glu Asp Gln Leu Leu Ala Ala Val Val  
 1235 1240 1245  
 Ser Met Glu Arg Pro Asp Leu Glu Gln Leu Lys Ser Asp Leu Thr Lys  
 1250 1255 1260  
 Gln Gln Asn Gly Phe Lys Ile Thr Leu Lys Thr Leu Glu Asp Ser Leu  
 1265 1270 1275 1280  
 Leu Ser Arg Leu Ser Ser Ala Ser Gly Asn Phe Leu Gly Glu Thr Val  
 1285 1290 1295  
 Leu Val Glu Asn Leu Glu Ile Thr Lys Gln Thr Ala Ala Glu Val Glu  
 1300 1305 1310  
 Lys Lys Val Gln Glu Ala Lys Val Thr Glu Val Lys Ile Asn Glu Ala  
 1315 1320 1325  
 Arg Glu His Tyr Arg Pro Ala Ala Ala Arg Ala Ser Leu Leu Tyr Phe  
 1330 1335 1340  
 Ile Met Asn Asp Leu Ser Lys Ile His Pro Met Tyr Gln Phe Ser Leu  
 1345 1350 1355 1360  
 Lys Ala Phe Ser Ile Val Phe Gln Lys Ala Val Glu Arg Ala Ala Pro  
 1365 1370 1375  
 Asp Glu Ser Leu Arg Glu Arg Val Ala Asn Leu Ile Asp Ser Ile Thr  
 1380 1385 1390  
 Phe Ser Val Tyr Gln Tyr Thr Ile Arg Gly Leu Phe Glu Cys Asp Lys  
 1395 1400 1405  
 Leu Thr Tyr Leu Ala Gln Leu Thr Phe Gln Ile Leu Leu Met Asn Arg  
 1410 1415 1420  
 Glu Val Asn Ala Val Glu Leu Asp Phe Leu Leu Arg Ser Pro Val Gln  
 1425 1430 1435 1440  
 Thr Gly Thr Ala Ser Pro Val Glu Phe Leu Ser His Gln Ala Trp Gly  
 1445 1450 1455  
 Ala Val Lys Val Leu Ser Ser Met Glu Glu Phe Ser Asn Leu Asp Arg  
 1460 1465 1470  
 Asp Ile Glu Gly Ser Ala Lys Ser Trp Lys Lys Phe Val Glu Ser Glu  
 1475 1480 1485  
 Cys Pro Glu Lys Glu Lys Leu Pro Gln Glu Trp Lys Asn Lys Thr Ala  
 1490 1495 1500  
 Leu Gln Arg Leu Cys Met Leu Arg Ala Met Arg Pro Asp Arg Met Thr  
 1505 1510 1515 1520

Tyr Ala Leu Arg Asp Phe Val Glu Glu Lys Leu Gly Ser Lys Tyr Val  
 1525 1530 1535  
 Val Gly Arg Ala Leu Asp Phe Ala Thr Ser Phe Glu Glu Ser Gly Pro  
 1540 1545 1550  
 Ala Thr Pro Met Phe Phe Ile Leu Ser Pro Gly Val Asp Pro Leu Lys  
 1555 1560 1565  
 Asp Val Glu Ser Gln Gly Arg Lys Leu Gly Tyr Thr Phe Asn Asn Gln  
 1570 1575 1580  
 Asn Phe His Asn Val Ser Leu Gly Gln Gly Gln Glu Val Val Ala Glu  
 1585 1590 1595 1600  
 Ala Ala Leu Asp Leu Ala Ala Lys Lys Gly His Trp Val Ile Leu Gln  
 1605 1610 1615  
 Asn Ile His Leu Val Ala Lys Trp Leu Ser Thr Leu Glu Lys Lys Leu  
 1620 1625 1630  
 Glu Glu His Ser Glu Asn Ser His Pro Glu Phe Arg Val Phe Met Ser  
 1635 1640 1645  
 Ala Glu Pro Ala Pro Ser Pro Glu Gly His Ile Ile Pro Gln Gly Ile  
 1650 1655 1660  
 Leu Glu Asn Ser Ile Lys Ile Thr Asn Glu Pro Pro Thr Gly Met His  
 1665 1670 1675 1680  
 Ala Asn Leu His Lys Ala Leu Asp Asn Phe Thr Gln Asp Thr Leu Glu  
 1685 1690 1695  
 Met Cys Ser Arg Glu Thr Glu Phe Lys Ser Ile Leu Phe Ala Leu Cys  
 1700 1705 1710  
 Tyr Phe His Ala Val Val Ala Glu Arg Arg Lys Phe Gly Pro Gln Gly  
 1715 1720 1725  
 Trp Asn Arg Ser Tyr Pro Phe Asn Thr Gly Asp Leu Thr Ile Ser Val  
 1730 1735 1740  
 Asn Val Leu Tyr Asn Phe Leu Glu Ala Asn Ala Lys Val Pro Tyr Asp  
 1745 1750 1755 1760  
 Asp Leu Arg Tyr Leu Phe Gly Glu Ile Met Tyr Gly Gly His Ile Thr  
 1765 1770 1775  
 Asp Asp Trp Asp Arg Arg Leu Cys Arg Thr Tyr Leu Gly Glu Phe Ile  
 1780 1785 1790  
 Arg Pro Glu Met Leu Glu Gly Glu Leu Ser Leu Ala Pro Gly Phe Pro  
 1795 1800 1805  
 Leu Pro Gly Asn Met Asp Tyr Asn Gly Tyr His Gln Tyr Ile Asp Ala  
 1810 1815 1820  
 Glu Leu Pro Pro Glu Ser Pro Tyr Leu Tyr Gly Leu His Pro Asn Ala  
 1825 1830 1835 1840  
 Glu Ile Gly Phe Leu Thr Gln Thr Ser Glu Lys Leu Phe Arg Thr Val  
 1845 1850 1855  
 Leu Glu Leu Gln Pro Arg Asp Ser Gln Ala Arg Asp Gly Ala Gly Ala  
 1860 1865 1870  
 Thr Arg Glu Glu Lys Val Lys Ala Leu Leu Glu Glu Ile Leu Glu Arg  
 1875 1880 1885  
 Val Thr Asp Glu Phe Asn Ile Pro Glu Leu Met Ala Lys Val Glu Glu  
 1890 1895 1900  
 Arg Thr Pro Tyr Ile Val Val Ala Phe Gln Glu Cys Gly Arg Met Asn  
 1905 1910 1915 1920  
 Ile Leu Thr Arg Glu Ile Gln Arg Ser Leu Arg Glu Leu Glu Leu Gly  
 1925 1930 1935  
 Leu Lys Gly Glu Leu Thr Met Thr Ser His Met Glu Asn Leu Gln Asn  
 1940 1945 1950  
 Ala Leu Tyr Phe Asp Met Val Pro Glu Ser Trp Ala Arg Arg Ala Tyr  
 1955 1960 1965  
 Pro Ser Thr Ala Gly Leu Ala Ala Trp Phe Pro Asp Leu Leu Asn Arg  
 1970 1975 1980  
 Ile Lys Glu Leu Glu Ala Trp Thr Gly Asp Phe Thr Met Pro Ser Thr  
 1985 1990 1995 2000  
 Val Trp Leu Thr Gly Phe Phe Asn Pro Gln Ser Phe Leu Thr Ala Ile  
 2005 2010 2015  
 Met Gln Ser Thr Ala Arg Lys Asn Glu Trp Pro Leu Asp Gln Met Ala  
 2020 2025 2030

Leu Gln Cys Asp Met Thr Lys Lys Asn Arg Glu Glu Phe Arg Ser Pro  
           2035                          2040                          2045  
 Pro Arg Glu Gly Ala Tyr Ile His Gly Leu Phe Met Glu Gly Ala Cys  
           2050                          2055                          2060  
 Trp Asp Thr Gln Ala Gly Ile Ile Thr Glu Ala Lys Leu Lys Asp Leu  
 2065                          2070                          2075                          2080  
 Thr Pro Pro Met Pro Val Met Phe Ile Lys Ala Ile Pro Ala Asp Lys  
                           2085                          2090                          2095  
 Gln Asp Cys Arg Ser Val Tyr Ser Cys Pro Val Tyr Lys Thr Ser Gln  
                           2100                          2105                          2110  
 Arg Gly Pro Thr Tyr Val Trp Thr Phe Asn Leu Lys Thr Lys Glu Asn  
                           2115                          2120                          2125  
 Pro Ser Lys Trp Val Leu Ala Gly Val Ala Leu Leu Leu Gln Ile  
           2130                          2135                          2140                          2143

<210> 1542  
 <211> 964  
 <212> PRT  
 <213> Homo sapiens

<400> 1542  
 Met Ala Asp Leu Ala Glu Cys Asn Ile Lys Val Met Cys Arg Phe Arg  
   1                          5                          10                          15  
 Pro Leu Asn Glu Ser Glu Val Asn Arg Gly Asp Lys Tyr Ile Ala Lys  
           20                          25                          30  
 Phe Gln Gly Glu Asp Thr Val Val Ile Ala Ser Lys Pro Tyr Ala Phe  
           35                          40                          45  
 Asp Arg Val Phe Gln Ser Ser Thr Ser Gln Glu Gln Val Tyr Asn Asp  
           50                          55                          60  
 Cys Ala Lys Lys Ile Val Lys Asp Val Leu Glu Gly Tyr Asn Gly Thr  
           65                          70                          75                          80  
 Ile Phe Ala Tyr Gly Gln Thr Ser Ser Gly Lys Thr His Thr Met Glu  
                           85                          90                          95  
 Gly Lys Leu His Asp Pro Glu Gly Met Gly Ile Ile Pro Arg Ile Val  
                           100                          105                          110  
 Gln Asp Ile Phe Asn Tyr Ile Tyr Ser Met Asp Glu Asn Leu Glu Phe  
           115                          120                          125  
 His Ile Lys Val Ser Tyr Phe Glu Ile Tyr Leu Asp Lys Ile Arg Asp  
           130                          135                          140  
 Leu Leu Asp Val Ser Lys Thr Asn Leu Ser Val His Glu Asp Lys Asn  
 145                          150                          155                          160  
 Arg Val Pro Tyr Val Lys Gly Cys Thr Glu Arg Phe Val Cys Ser Pro  
                           165                          170                          175  
 Asp Glu Val Met Asp Thr Ile Asp Glu Gly Lys Ser Asn Arg His Val  
                           180                          185                          190  
 Ala Val Thr Asn Met Asn Glu His Ser Ser Arg Ser His Ser Ile Phe  
           195                          200                          205  
 Leu Ile Asn Val Lys Gln Glu Asn Thr Gln Thr Glu Gln Lys Leu Ser  
           210                          215                          220  
 Gly Lys Leu Tyr Leu Val Asp Leu Ala Gly Ser Glu Lys Val Ser Lys  
 225                          230                          235                          240  
 Thr Gly Ala Glu Gly Ala Val Leu Asp Glu Ala Lys Asn Ile Asn Lys  
                           245                          250                          255  
 Ser Leu Ser Ala Leu Gly Asn Val Ile Ser Ala Leu Ala Glu Gly Ser  
                           260                          265                          270  
 Thr Tyr Val Pro Tyr Arg Asp Ser Lys Met Thr Arg Ile Leu Gln Asp  
           275                          280                          285  
 Ser Leu Gly Gly Asn Cys Arg Thr Thr Ile Val Ile Cys Cys Ser Pro  
           290                          295                          300  
 Ser Ser Tyr Asn Glu Ser Glu Thr Lys Ser Thr Leu Leu Phe Gly Gln  
 305                          310                          315                          320

Arg Ala Lys Thr Ile Lys Asn Thr Val Cys Val Asn Val Glu Leu Thr  
 325 330 335  
 Ala Glu Gln Trp Lys Lys Lys Tyr Glu Lys Glu Lys Glu Lys Asn Lys  
 340 345 350  
 Ile Leu Arg Asn Thr Ile Gln Trp Leu Glu Asn Glu Leu Asn Arg Trp  
 355 360 365  
 Arg Asn Gly Glu Thr Val Pro Ile Asp Glu Gln Phe Asp Lys Glu Lys  
 370 375 380  
 Ala Asn Leu Glu Ala Phe Thr Val Asp Lys Asp Ile Thr Leu Thr Asn  
 385 390 395 400  
 Asp Lys Pro Ala Thr Ala Ile Gly Val Ile Gly Asn Phe Thr Asp Ala  
 405 410 415  
 Glu Arg Arg Lys Cys Glu Glu Glu Ile Ala Lys Leu Tyr Lys Gln Leu  
 420 425 430  
 Asp Asp Lys Asp Glu Glu Ile Asn Gln Gln Ser Gln Leu Val Glu Lys  
 435 440 445  
 Leu Lys Thr Gln Met Leu Asp Gln Glu Glu Leu Leu Ala Ser Thr Arg  
 450 455 460  
 Arg Asp Gln Asp Asn Met Gln Ala Glu Leu Asn Arg Leu Gln Ala Glu  
 465 470 475 480  
 Asn Asp Ala Ser Lys Glu Glu Val Lys Glu Val Leu Gln Ala Leu Glu  
 485 490 495  
 Glu Leu Ala Val Asn Tyr Asp Gln Lys Ser Gln Glu Val Glu Asp Lys  
 500 505 510  
 Thr Lys Glu Tyr Glu Leu Leu Ser Asp Glu Leu Asn Gln Lys Ser Ala  
 515 520 525  
 Thr Leu Ala Ser Ile Asp Ala Glu Leu Gln Lys Leu Lys Glu Met Thr  
 530 535 540  
 Asn His Gln Lys Lys Arg Ala Ala Glu Met Met Ala Ser Leu Leu Lys  
 545 550 555 560  
 Asp Leu Ala Glu Ile Gly Ile Ala Val Gly Asn Asn Asp Val Lys Gln  
 565 570 575  
 Pro Glu Gly Thr Gly Met Ile Asp Glu Glu Phe Thr Val Ala Arg Leu  
 580 585 590  
 Tyr Ile Ser Lys Met Lys Ser Glu Val Lys Thr Met Val Lys Arg Cys  
 595 600 605  
 Lys Gln Leu Glu Ser Thr Gln Thr Glu Ser Asn Lys Lys Met Glu Glu  
 610 615 620  
 Asn Glu Lys Glu Leu Ala Ala Cys Gln Leu Arg Ile Ser Gln His Glu  
 625 630 635 640  
 Ala Lys Ile Lys Ser Leu Thr Glu Tyr Leu Gln Asn Val Glu Gln Lys  
 645 650 655  
 Lys Arg Gln Leu Glu Glu Ser Val Asp Ala Leu Ser Glu Glu Leu Val  
 660 665 670  
 Gln Leu Arg Ala Gln Glu Lys Val His Glu Met Glu Lys Glu His Leu  
 675 680 685  
 Asn Lys Val Gln Thr Ala Asn Glu Val Lys Gln Ala Val Glu Gln Gln  
 690 695 700  
 Ile Gln Ser His Arg Glu Thr His Gln Lys Gln Ile Ser Ser Leu Arg  
 705 710 715 720  
 Asp Glu Val Glu Ala Lys Ala Lys Leu Ile Thr Asp Leu Gln Asp Gln  
 725 730 735  
 Asn Gln Lys Met Met Leu Glu Gln Glu Arg Leu Arg Val Glu His Glu  
 740 745 750  
 Lys Leu Lys Ala Thr Asp Gln Glu Lys Ser Arg Lys Leu His Glu Leu  
 755 760 765  
 Thr Val Met Gln Asp Arg Arg Glu Gln Ala Arg Gln Asp Leu Lys Gly  
 770 775 780  
 Leu Glu Glu Thr Val Ala Lys Glu Leu Gln Thr Leu His Asn Leu Arg  
 785 790 795 800  
 Lys Leu Phe Val Gln Asp Leu Ala Thr Arg Val Lys Lys Ser Ala Glu  
 805 810 815  
 Ile Asp Ser Asp Asp Thr Gly Gly Ser Ala Ala Gln Lys Gln Lys Ile  
 820 825 830



Ser Phe Leu Glu Asn Asn Leu Glu Gln Leu Thr Lys Val His Lys Gln  
 835 840 845  
 Leu Val Arg Asp Asn Ala Asp Leu Arg Cys Glu Leu Pro Lys Leu Glu  
 850 855 860  
 Lys Arg Leu Arg Ala Thr Ala Glu Arg Val Lys Ala Leu Glu Ser Ala  
 865 870 875 880  
 Leu Lys Glu Ala Lys Glu Asn Ala Ser Arg Asp Arg Lys Arg Tyr Gln  
 885 890 895  
 Gln Glu Val Asp Arg Ile Lys Glu Ala Val Arg Ser Lys Asn Met Ala  
 900 905 910  
 Arg Arg Gly His Ser Ala Gln Ile Ala Lys Pro Ile Arg Pro Gly Gln  
 915 920 925  
 His Pro Ala Ala Ser Pro Thr His Pro Ser Ala Ile Arg Gly Gly Gly  
 930 935 940  
 Ala Phe Val Gln Asn Ser Gln Pro Val Ala Val Arg Gly Gly Gly Gly  
 945 950 955 960  
 Lys Gln Val \*  
 963

<210> 1543  
 <211> 585  
 <212> PRT  
 <213> Homo sapiens

<400> 1543  
 Met Ala Ser Val Gln Ala Ser Arg Arg Gln Trp Cys Tyr Leu Cys Asp  
 1 5 10 15  
 Leu Pro Lys Met Pro Trp Ala Met Val Trp Asp Phe Ser Glu Ala Val  
 20 25 30  
 Cys Arg Gly Cys Val Asn Phe Glu Gly Ala Asp Arg Ile Glu Leu Leu  
 35 40 45  
 Ile Asp Ala Ala Arg Gln Leu Lys Arg Ser His Val Leu Pro Glu Gly  
 50 55 60  
 Arg Ser Pro Gly Pro Pro Ala Leu Lys His Pro Ala Thr Lys Asp Leu  
 65 70 75 80  
 Ala Ala Ala Ala Ala Gln Gly Pro Gln Leu Pro Pro Pro Gln Ala Gln  
 85 90 95  
 Pro Gln Pro Ser Gly Thr Gly Gly Gly Val Ser Gly Gln Asp Arg Tyr  
 100 105 110  
 Asp Arg Ala Thr Ser Ser Gly Arg Leu Pro Leu Pro Ser Pro Ala Leu  
 115 120 125  
 Glu Tyr Thr Leu Gly Ser Arg Leu Ala Asn Gly Leu Gly Arg Glu Glu  
 130 135 140  
 Ala Val Ala Glu Gly Ala Arg Arg Ala Leu Leu Gly Ser Met Pro Gly  
 145 150 155 160  
 Leu Met Pro Pro Gly Leu Leu Ala Ala Ala Val Ser Gly Leu Gly Ser  
 165 170 175  
 Arg Gly Leu Thr Leu Ala Pro Gly Leu Ser Pro Ala Arg Pro Leu Phe  
 180 185 190  
 Gly Ser Asp Phe Glu Lys Glu Lys Gln Gln Arg Asn Ala Asp Cys Leu  
 195 200 205  
 Ala Glu Leu Asn Glu Ala Met Arg Gly Arg Ala Glu Glu Trp His Gly  
 210 215 220  
 Arg Pro Lys Ala Val Arg Glu Gln Leu Leu Ala Leu Ser Ala Cys Ala  
 225 230 235 240  
 Pro Phe Asn Val Arg Phe Lys Lys Asp His Gly Leu Val Gly Arg Val  
 245 250 255  
 Phe Ala Phe Asp Ala Thr Ala Arg Pro Pro Gly Tyr Glu Phe Glu Leu  
 260 265 270  
 Lys Leu Phe Thr Glu Tyr Pro Cys Gly Ser Gly Asn Val Tyr Ala Gly  
 275 280 285

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Val Leu Ala Val Ala Arg Gln Met Phe His Asp Ala Leu Arg Glu Pro
290          295          300
Gly Lys Ala Leu Ala Ser Ser Gly Phe Lys Tyr Leu Glu Tyr Glu Arg
305          310          315          320
Arg His Gly Ser Gly Glu Trp Arg Gln Leu Gly Glu Leu Leu Thr Asp
          325          330          335
Gly Val Arg Ser Phe Arg Glu Pro Ala Pro Ala Glu Ala Leu Pro Gln
          340          345          350
Gln Tyr Pro Glu Pro Ala Pro Ala Ala Leu Cys Gly Pro Pro Pro Arg
          355          360          365
Ala Pro Ser Arg Asn Leu Ala Pro Thr Pro Arg Arg Arg Lys Ala Ser
          370          375          380
Pro Glu Pro Glu Gly Glu Ala Ala Gly Lys Met Thr Thr Glu Glu Gln
          385          390          395          400
Gln Gln Arg His Trp Val Ala Pro Gly Gly Pro Tyr Ser Ala Glu Thr
          405          410          415
Pro Gly Val Pro Ser Pro Ile Ala Ala Leu Lys Asn Val Ala Glu Ala
          420          425          430
Leu Gly His Ser Pro Lys Asp Pro Gly Gly Gly Gly Gly Pro Val Arg
          435          440          445
Ala Gly Gly Ala Ser Pro Ala Ala Ser Ser Thr Ala Gln Pro Pro Thr
          450          455          460
Gln His Arg Leu Val Ala Arg Asn Gly Glu Ala Glu Val Ser Pro Thr
          465          470          475          480
Ala Gly Ala Glu Ala Val Ser Gly Gly Gly Ser Gly Thr Gly Ala Thr
          485          490          495
Pro Gly Ala Pro Leu Cys Cys Thr Leu Cys Arg Glu Arg Leu Glu Asp
          500          505          510
Thr His Phe Val Gln Cys Pro Ser Val Pro Gly His Lys Phe Cys Phe
          515          520          525
Pro Cys Ser Arg Glu Phe Ile Lys Ala Gln Gly Pro Ala Gly Glu Val
          530          535          540
Tyr Cys Pro Ser Gly Asp Lys Cys Pro Leu Val Gly Ser Ser Val Pro
          545          550          555          560
Trp Ala Phe Met Gln Gly Glu Ile Ala Thr Ile Leu Ala Gly Asp Ile
          565          570          575
Lys Val Lys Lys Glu Arg Asp Pro *
          580          584

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&lt;210&gt; 1544

&lt;211&gt; 583

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1544

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Met Pro Pro Gly Val Val Phe Lys Ala Pro Gly Tyr Leu Glu Ile Ser
1          5          10          15
Ser Met Arg Arg Ile Leu Glu Ala Ala Glu Phe Ile Lys Phe Thr Val
          20          25          30
Ile Arg Pro Leu Pro Gly Leu Glu Leu Ser Asn Gly Glu Tyr Ser Thr
          35          40          45
Val Gly Lys Arg Lys Ile Asp Gln Glu Gly Arg Val Phe Gln Glu Lys
          50          55          60
Trp Glu Arg Ala Tyr Phe Phe Val Glu Val Gln Asn Ile Pro Thr Cys
          65          70          75          80
Leu Ile Cys Lys Gln Ser Met Ser Val Ser Lys Glu Tyr Asn Leu Arg
          85          90          95
Arg His Tyr Gln Thr Asn His Ser Lys His Tyr Asp Gln Tyr Met Glu
          100          105          110
Arg Met Arg Asp Glu Lys Leu His Glu Leu Lys Lys Gly Leu Arg Lys
          115          120          125

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Tyr	Leu	Leu	Gly	Ser	Ser	Asp	Thr	Glu	Cys	Pro	Glu	Gln	Lys	Gln	Val
130						135					140				
Phe	Ala	Asn	Pro	Ser	Pro	Thr	Gln	Lys	Ser	Pro	Val	Gln	Pro	Val	Glu
145					150					155					160
Asp	Leu	Ala	Gly	Asn	Leu	Trp	Glu	Lys	Leu	Arg	Glu	Lys	Ile	Arg	Ser
				165					170					175	
Phe	Val	Ala	Tyr	Ser	Ile	Ala	Ile	Asp	Glu	Ile	Thr	Asp	Ile	Asn	Asn
				180				185					190		
Thr	Thr	Gln	Leu	Ala	Ile	Phe	Ile	Arg	Gly	Val	Asp	Glu	Asn	Phe	Asp
		195					200					205			
Val	Ser	Glu	Glu	Leu	Leu	Asp	Thr	Val	Pro	Met	Thr	Gly	Thr	Lys	Ser
	210					215					220				
Gly	Asn	Glu	Ile	Phe	Ser	Arg	Val	Glu	Lys	Ser	Leu	Lys	Lys	Phe	Cys
225					230					235					240
Ile	Asp	Trp	Ser	Lys	Leu	Val	Ser	Val	Ala	Ser	Thr	Gly	Thr	Pro	Ala
				245					250					255	
Met	Val	Asp	Ala	Asn	Asn	Gly	Leu	Val	Thr	Lys	Leu	Lys	Ser	Arg	Val
		260					265					270			
Ala	Thr	Phe	Cys	Lys	Gly	Ala	Glu	Leu	Lys	Ser	Ile	Cys	Cys	Ile	Ile
		275					280					285			
His	Pro	Glu	Ser	Leu	Cys	Ala	Gln	Lys	Leu	Lys	Met	Asp	His	Val	Met
	290					295					300				
Asp	Val	Val	Val	Lys	Ser	Val	Asn	Trp	Ile	Cys	Ser	Arg	Gly	Leu	Asn
305					310					315					320
His	Ser	Glu	Phe	Thr	Thr	Leu	Leu	Tyr	Glu	Leu	Asp	Ser	Gln	Tyr	Gly
				325					330					335	
Ser	Leu	Leu	Tyr	Tyr	Thr	Glu	Ile	Lys	Trp	Leu	Ser	Arg	Gly	Leu	Val
			340					345					350		
Leu	Lys	Arg	Phe	Phe	Glu	Ser	Leu	Glu	Glu	Ile	Asp	Ser	Phe	Met	Ser
		355					360					365			
Ser	Arg	Gly	Lys	Pro	Leu	Pro	Gln	Leu	Ser	Ser	Ile	Asp	Trp	Ile	Arg
	370					375					380				
Asp	Leu	Ala	Phe	Leu	Val	Asp	Met	Thr	Met	His	Leu	Asn	Ala	Leu	Asn
385					390					395					400
Ile	Ser	Leu	Gln	Gly	His	Ser	Gln	Ile	Val	Thr	Gln	Met	Tyr	Asp	Leu
			405						410					415	
Ile	Arg	Ala	Phe	Leu	Ala	Lys	Leu	Cys	Leu	Trp	Glu	Thr	His	Leu	Thr
			420					425					430		
Arg	Asn	Asn	Leu	Ala	His	Phe	Pro	Thr	Leu	Lys	Leu	Val	Ser	Arg	Asn
		435					440					445			
Glu	Ser	Asp	Gly	Leu	Asn	Tyr	Ile	Pro	Lys	Ile	Ala	Glu	Leu	Lys	Thr
	450					455					460				
Glu	Phe	Gln	Lys	Arg	Leu	Ser	Asp	Phe	Lys	Leu	Tyr	Glu	Ser	Glu	Leu
465					470					475					480
Thr	Leu	Phe	Ser	Ser	Pro	Phe	Ser	Thr	Lys	Ile	Asp	Ser	Val	His	Glu
				485					490					495	
Glu	Leu	Gln	Met	Glu	Val	Ile	Asp	Leu	Gln	Cys	Asn	Thr	Val	Leu	Lys
			500					505					510		
Thr	Lys	Tyr	Asp	Lys	Val	Gly	Ile	Pro	Glu	Phe	Tyr	Lys	Tyr	Leu	Trp
		515					520					525			
Gly	Ser	Tyr	Pro	Lys	Tyr	Lys	His	His	Cys	Ala	Lys	Ile	Leu	Ser	Met
	530					535					540				
Phe	Gly	Ser	Thr	Tyr	Ile	Cys	Glu	Gln	Leu	Phe	Ser	Ile	Met	Lys	Leu
545					550					555					560
Ser	Lys	Thr	Lys	Tyr	Cys	Ser	Gln	Leu	Lys	Asp	Ser	Gln	Trp	Asp	Ser
				565					570					575	
Val	Leu	His	Ile	Ala	Thr	*									
			580		582										

&lt;210&gt; 1545

&lt;211&gt; 362

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1545

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Met Ala Gly Gly Arg His Arg Arg Val Val Gly Thr Leu His Leu Leu
 1          5          10          15
Leu Leu Val Ala Ala Leu Pro Trp Ala Ser Arg Gly Val Ser Pro Ser
 20          25          30
Ala Ser Ala Trp Pro Glu Glu Lys Asn Tyr His Gln Pro Ala Ile Leu
 35          40          45
Asn Ser Ser Ala Leu Arg Gln Ile Ala Glu Gly Thr Ser Ile Ser Glu
 50          55          60
Met Trp Gln Asn Asp Leu Gln Pro Leu Leu Ile Glu Arg Tyr Pro Gly
 65          70          75          80
Ser Pro Gly Ser Tyr Ala Ala Arg Gln His Ile Met Gln Arg Ile Gln
 85          90          95
Arg Leu Gln Ala Asp Trp Val Leu Glu Ile Asp Thr Phe Leu Ser Gln
100          105          110
Thr Pro Tyr Gly Tyr Arg Ser Phe Ser Asn Ile Ile Ser Thr Leu Asn
115          120          125
Pro Thr Ala Lys Arg His Leu Val Leu Ala Cys His Tyr Asp Ser Lys
130          135          140
Tyr Phe Ser His Trp Asn Asn Arg Val Phe Val Gly Ala Thr Asp Ser
145          150          155          160
Ala Val Pro Cys Ala Met Met Leu Glu Leu Ala Arg Ala Leu Asp Lys
165          170          175
Lys Leu Leu Ser Leu Lys Thr Val Ser Asp Ser Lys Pro Asp Leu Ser
180          185          190
Leu Gln Leu Ile Phe Phe Asp Gly Glu Glu Ala Phe Leu His Trp Ser
195          200          205
Pro Gln Asp Ser Leu Tyr Gly Ser Arg His Leu Ala Ala Lys Met Ala
210          215          220
Ser Thr Pro His Pro Pro Gly Ala Arg Gly Thr Ser Gln Leu His Gly
225          230          235          240
Met Asp Leu Leu Val Leu Leu Asp Leu Ile Gly Ala Pro Asn Pro Thr
245          250          255
Phe Pro Asn Phe Phe Pro Asn Ser Ala Arg Trp Phe Glu Arg Leu Gln
260          265          270
Ala Ile Glu His Glu Leu His Glu Leu Gly Leu Leu Lys Asp His Ser
275          280          285
Leu Glu Gly Arg Tyr Phe Gln Asn Tyr Ser Tyr Gly Gly Val Ile Gln
290          295          300
Asp Asp His Ile Pro Phe Leu Arg Arg Gly Val Pro Val Leu His Leu
305          310          315          320
Ile Pro Ser Pro Phe Pro Glu Val Trp His Thr Met Asp Asp Asn Glu
325          330          335
Glu Asn Leu Asp Glu Ser Thr Ile Asp Asn Leu Asn Lys Ile Leu Gln
340          345          350
Val Phe Val Leu Glu Tyr Leu His Leu *
355          360 361

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&lt;210&gt; 1546

&lt;211&gt; 313

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1546

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Met Ala Gly Gly Arg His Arg Arg Val Val Gly Thr Leu His Leu Leu
 1          5          10          15
Leu Leu Val Ala Ala Leu Pro Trp Ala Ser Arg Gly Val Ser Pro Ser
 20          25          30

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Ala Ser Ala Trp Pro Glu Glu Lys His Ile Met Gln Arg Ile Gln Arg  
           35                                  40                                  45  
 Leu Gln Ala Asp Trp Val Leu Glu Ile Asp Thr Phe Leu Ser Gln Thr  
           50                                  55                                  60  
 Pro Tyr Gly Tyr Arg Ser Phe Ser Asn Ile Ile Ser Thr Leu Asn Pro  
           65                                  70                                  75                                  80  
 Thr Ala Lys Arg His Leu Val Leu Ala Cys His Tyr Asp Ser Lys Tyr  
                                   85                                  90                                  95  
 Phe Ser His Trp Asn Asn Arg Val Phe Val Gly Ala Thr Asp Ser Ala  
                                   100                                  105                                  110  
 Val Pro Cys Ala Met Met Leu Glu Leu Ala Arg Ala Leu Asp Lys Lys  
                                   115                                  120                                  125  
 Leu Leu Ser Leu Lys Thr Val Ser Asp Ser Lys Pro Asp Leu Ser Leu  
           130                                  135                                  140  
 Gln Leu Ile Phe Phe Asp Gly Glu Glu Ala Phe Leu His Trp Ser Pro  
           145                                  150                                  155                                  160  
 Gln Asp Ser Leu Tyr Gly Ser Arg His Leu Ala Ala Lys Met Ala Ser  
                                   165                                  170                                  175  
 Thr Pro His Pro Pro Gly Ala Arg Gly Thr Ser Gln Leu His Gly Met  
                                   180                                  185                                  190  
 Asp Leu Leu Val Leu Leu Asp Leu Ile Gly Ala Pro Asn Pro Thr Phe  
                                   195                                  200                                  205  
 Pro Asn Phe Phe Pro Asn Ser Ala Arg Trp Phe Glu Arg Leu Gln Ala  
           210                                  215                                  220  
 Ile Glu His Glu Leu His Glu Leu Gly Leu Leu Lys Asp His Ser Leu  
           225                                  230                                  235                                  240  
 Glu Gly Arg Tyr Phe Gln Asn Tyr Ser Tyr Gly Gly Val Ile Gln Asp  
                                   245                                  250                                  255  
 Asp His Ile Pro Phe Leu Arg Arg Gly Val Pro Val Leu His Leu Ile  
                                   260                                  265                                  270  
 Pro Ser Pro Phe Pro Glu Val Trp His Thr Met Asp Asp Asn Glu Glu  
           275                                  280                                  285  
 Asn Leu Asp Glu Ser Thr Ile Asp Asn Leu Asn Lys Ile Leu Gln Val  
           290                                  295                                  300  
 Phe Val Leu Glu Tyr Leu His Leu \*  
           305                                  310                                  312

<210> 1547  
 <211> 172  
 <212> PRT  
 <213> Homo sapiens

<400> 1547  
 Met Ser Ser Lys Arg Thr Lys Thr Lys Thr Lys Lys Arg Pro Gln Arg  
           1                                  5                                  10                                  15  
 Ala Thr Ser Asn Val Phe Ala Met Phe Asp Gln Ser Gln Ile Gln Glu  
                                   20                                  25                                  30  
 Phe Lys Glu Ala Phe Asn Met Ile Asp Gln Asn Arg Asp Gly Phe Ile  
           35                                  40                                  45  
 Asp Lys Glu Asp Leu His Asp Met Leu Ala Ser Leu Gly Lys Asn Pro  
           50                                  55                                  60  
 Thr Asp Glu Tyr Leu Asp Ala Met Met Asn Glu Ala Pro Gly Pro Ile  
           65                                  70                                  75                                  80  
 Asn Phe Thr Met Phe Leu Thr Met Phe Gly Glu Lys Leu Asn Gly Thr  
                                   85                                  90                                  95  
 Asp Pro Glu Asp Val Ile Arg Asn Ala Phe Ala Cys Phe Asp Glu Glu  
                                   100                                  105                                  110  
 Ala Thr Gly Thr Ile Gln Glu Asp Tyr Leu Arg Glu Leu Leu Thr Thr  
           115                                  120                                  125  
 Met Gly Asp Arg Phe Thr Asp Glu Glu Val Asp Glu Leu Tyr Arg Glu  
           130                                  135                                  140

Ala Pro Ile Asp Lys Lys Gly Asn Phe Asn Tyr Ile Glu Phe Thr Arg  
 145 150 155 160  
 Ile Leu Lys His Gly Ala Lys Asp Lys Asp Asp \*  
 165 170 171

<210> 1548  
 <211> 1721  
 <212> PRT  
 <213> Homo sapiens

<400> 1548  
 Met Ala Ala Ala Pro Ser Ala Leu Leu Leu Leu Pro Pro Phe Pro Val  
 1 5 10 15  
 Leu Ser Thr Tyr Arg Leu Gln Ser Arg Ser Arg Pro Ser Ala Pro Glu  
 20 25 30  
 Thr Asp Asp Ser Arg Val Gly Gly Ile Met Arg Gly Glu Lys Asn Tyr  
 35 40 45  
 Tyr Phe Arg Gly Ala Ala Gly Asp His Gly Ser Cys Pro Thr Thr Thr  
 50 55 60  
 Ser Pro Leu Ala Ser Ala Leu Leu Met Pro Ser Glu Ala Val Ser Ser  
 65 70 75 80  
 Ser Trp Ser Glu Ser Gly Gly Gly Leu Ser Gly Gly Asp Glu Glu Asp  
 85 90 95  
 Thr Arg Leu Leu Gln Leu Leu Arg Thr Ala Arg Asp Pro Ser Glu Ala  
 100 105 110  
 Phe Gln Ala Leu Gln Ala Ala Leu Pro Arg Arg Gly Gly Arg Leu Gly  
 115 120 125  
 Phe Pro Arg Arg Lys Glu Ala Leu Tyr Arg Ala Leu Gly Arg Val Leu  
 130 135 140  
 Val Glu Gly Gly Ser Asp Glu Lys Arg Leu Cys Leu Gln Leu Leu Ser  
 145 150 155 160  
 Asp Val Leu Arg Gly Gln Gly Glu Ala Gly Gln Leu Glu Glu Ala Phe  
 165 170 175  
 Ser Leu Ala Leu Leu Pro Gln Leu Val Val Ser Leu Arg Glu Glu Asn  
 180 185 190  
 Pro Ala Leu Arg Lys Asp Ala Leu Gln Ile Leu His Ile Cys Leu Lys  
 195 200 205  
 Arg Ser Pro Gly Glu Val Leu Arg Thr Leu Ile Gln Gln Gly Leu Glu  
 210 215 220  
 Ser Thr Asp Ala Arg Leu Arg Ala Ser Thr Ala Leu Leu Leu Pro Ile  
 225 230 235 240  
 Leu Leu Thr Thr Glu Asp Leu Leu Leu Gly Leu Asp Leu Thr Glu Val  
 245 250 255  
 Ile Ile Ser Leu Ala Arg Lys Leu Gly Asp Gln Glu Thr Glu Glu Glu  
 260 265 270  
 Ser Glu Thr Ala Phe Ser Ala Leu Gln Gln Ile Gly Glu Arg Leu Gly  
 275 280 285  
 Gln Asp Arg Phe Gln Ser Tyr Ile Ser Arg Leu Pro Ser Ala Leu Arg  
 290 295 300  
 Arg His Tyr Asn Arg Arg Leu Glu Ser Gln Phe Gly Ser Gln Val Pro  
 305 310 315 320  
 Tyr Tyr Leu Glu Leu Glu Ala Ser Gly Phe Pro Glu Asp Pro Leu Pro  
 325 330 335  
 Cys Ala Val Thr Leu Ser Asn Ser Asn Leu Lys Phe Gly Ile Ile Pro  
 340 345 350  
 Gln Glu Leu His Ser Arg Leu Leu Asp Gln Glu Asp Tyr Lys Asn Arg  
 355 360 365  
 Thr Gln Ala Val Glu Glu Leu Lys Gln Val Leu Gly Lys Phe Asn Pro  
 370 375 380  
 Ser Ser Thr Pro His Ser Ser Leu Val Gly Phe Ile Ser Leu Leu Tyr  
 385 390 395 400

Asn	Leu	Leu	Asp	Asp	Ser	Asn	Phe	Lys	Val	Val	His	Gly	Thr	Leu	Glu
			405						410					415	
Val	Leu	His	Leu	Leu	Val	Ile	Arg	Leu	Gly	Glu	Gln	Val	Gln	Gln	Phe
			420					425					430		
Leu	Gly	Pro	Val	Ile	Ala	Ala	Ser	Val	Lys	Val	Leu	Ala	Asp	Asn	Lys
		435					440					445			
Leu	Val	Ile	Lys	Gln	Glu	Tyr	Met	Lys	Ile	Phe	Leu	Lys	Leu	Met	Lys
	450					455					460				
Glu	Val	Gly	Pro	Gln	Gln	Val	Leu	Cys	Leu	Leu	Glu	His	Leu	Lys	
465					470					475				480	
His	Lys	His	Ser	Arg	Val	Arg	Glu	Glu	Val	Val	Asn	Ile	Cys	Ile	Cys
			485						490					495	
Ser	Leu	Leu	Thr	Tyr	Pro	Ser	Glu	Asp	Phe	Asp	Leu	Pro	Lys	Leu	Ser
			500					505					510		
Phe	Asp	Leu	Ala	Pro	Ala	Leu	Val	Asp	Ser	Lys	Arg	Arg	Val	Arg	Gln
	515						520						525		
Ala	Ala	Leu	Glu	Ala	Phe	Ala	Val	Leu	Ala	Ser	Ser	Met	Gly	Ser	Gly
	530					535						540			
Lys	Thr	Ser	Ile	Leu	Phe	Lys	Ala	Val	Asp	Thr	Val	Glu	Leu	Gln	Asp
545					550					555					560
Asn	Gly	Asp	Gly	Val	Met	Asn	Ala	Val	Gln	Ala	Arg	Leu	Ala	Arg	Lys
			565						570					575	
Thr	Leu	Pro	Arg	Leu	Thr	Glu	Gln	Gly	Phe	Val	Glu	Tyr	Ala	Val	Leu
			580					585					590		
Met	Pro	Ser	Ser	Ala	Gly	Gly	Arg	Ser	Asn	His	Leu	Ala	His	Gly	Ala
	595					600						605			
Asp	Thr	Asp	Trp	Leu	Leu	Ala	Gly	Asn	Arg	Thr	Gln	Ser	Ala	His	Cys
	610					615					620				
His	Cys	Gly	Asp	His	Val	Arg	Asp	Ser	Met	His	Ile	Tyr	Gly	Ser	Tyr
625					630					635					640
Ser	Pro	Thr	Ile	Cys	Thr	Arg	Arg	Val	Leu	Ser	Ala	Gly	Lys	Gly	Lys
			645						650					655	
Asn	Lys	Leu	Pro	Trp	Glu	Asn	Glu	Gln	Pro	Gly	Ile	Met	Gly	Glu	Asn
			660					665					670		
Gln	Thr	Ser	Thr	Ser	Lys	Asp	Ile	Glu	Gln	Phe	Ser	Thr	Tyr	Asp	Phe
	675						680					685			
Ile	Pro	Ser	Ala	Lys	Leu	Lys	Leu	Ser	Gln	Gly	Met	Pro	Val	Asn	Asp
	690					695					700				
Asp	Leu	Cys	Phe	Ser	Arg	Lys	Arg	Val	Ser	Arg	Asn	Leu	Phe	Gln	Asn
705					710					715					720
Ser	Arg	Asp	Phe	Asn	Pro	Asp	Cys	Leu	Pro	Leu	Cys	Ala	Ala	Gly	Thr
			725						730					735	
Thr	Gly	Thr	His	Gln	Thr	Asn	Leu	Ser	Gly	Lys	Cys	Ala	Gln	Leu	Gly
			740					745					750		
Phe	Ser	Gln	Ile	Cys	Gly	Lys	Thr	Gly	Ser	Val	Gly	Ser	Asp	Leu	Gln
	755						760					765			
Phe	Leu	Gly	Thr	Thr	Ser	Ser	His	Gln	Glu	Lys	Val	Tyr	Ala	Ser	Leu
	770					775					780				
Asn	Phe	Gly	Ser	Lys	Thr	Gln	Gln	Thr	Phe	Gly	Ser	Gln	Thr	Glu	Cys
785					790					795					800
Thr	Ser	Ser	Asn	Gly	Gln	Asn	Pro	Ser	Pro	Gly	Ala	Tyr	Ile	Leu	Pro
			805						810					815	
Ser	Tyr	Pro	Val	Ser	Ser	Pro	Arg	Thr	Ser	Pro	Lys	His	Thr	Ser	Pro
			820					825					830		
Leu	Ile	Ile	Ser	Pro	Lys	Lys	Ser	Gln	Asp	Asn	Ser	Val	Asn	Phe	Ser
	835						840					845			
Asn	Ser	Trp	Pro	Leu	Lys	Ser	Phe	Glu	Gly	Leu	Ser	Lys	Pro	Ser	Pro
	850					855					860				
Gln	Lys	Lys	Leu	Val	Ser	Gln	Lys	Ser	Ser	Asp	Pro	Thr	Gly	Arg	Asn
865					870					875					880
His	Gly	Glu	Asn	Ser	Gln	Glu	Lys	Pro	Pro	Val	Gln	Leu	Thr	Pro	Ala
			885						890					895	
Leu	Val	Arg	Ser	Pro	Ser	Ser	Arg	Arg	Gly	Leu	Asn	Gly	Thr	Lys	Pro
			900					905					910		

Val Pro Pro Ile Pro Arg Gly Ile Ser Leu Leu Pro Asp Lys Ala Asp  
 915 920 925  
 Leu Ser Thr Val Gly His Lys Lys Lys Glu Pro Asp Asp Ile Trp Lys  
 930 935 940  
 Cys Glu Lys Asp Ser Leu Pro Ile Asp Leu Ser Glu Leu Asn Phe Lys  
 945 950 955 960  
 Asp Lys Asp Leu Asp Gln Glu Glu Met His Ser Ser Leu Arg Ser Leu  
 965 970 975  
 Arg Asn Ser Ala Ala Lys Lys Arg Ala Lys Leu Ser Gly Ser Thr Ser  
 980 985 990  
 Asp Leu Glu Ser Pro Asp Ser Ala Met Lys Leu Asp Leu Thr Met Asp  
 995 1000 1005  
 Ser Pro Ser Leu Ser Ser Ser Pro Asn Ile Asn Ser Tyr Ser Glu Ser  
 1010 1015 1020  
 Gly Val Tyr Ser Gln Glu Ser Leu Thr Ser Ser Leu Ser Thr Thr Pro  
 1025 1030 1035 1040  
 Gln Gly Lys Arg Ile Met Ser Asp Ile Phe Pro Thr Phe Gly Ser Lys  
 1045 1050 1055  
 Pro Cys Pro Thr Arg Leu Ser Ser Ala Lys Lys Lys Ile Ser His Ile  
 1060 1065 1070  
 Ala Glu Gln Ser Pro Ser Ala Gly Ser Ser Ser Asn Pro Gln Gln Ile  
 1075 1080 1085  
 Ser Ser Phe Asp Phe Thr Thr Lys Ala Leu Ser Glu Asp Ser Val  
 1090 1095 1100  
 Val Val Val Gly Lys Gly Val Phe Gly Ser Leu Ser Ser Ala Pro Ala  
 1105 1110 1115 1120  
 Thr Cys Ser Gln Ser Val Ile Ser Ser Val Glu Asn Gly Asp Thr Phe  
 1125 1130 1135  
 Ser Ile Lys Gln Ser Ile Glu Pro Pro Ser Gly Ile Tyr Gly Arg Ser  
 1140 1145 1150  
 Val Gln Gln Asn Ile Ser Ser Tyr Leu Asp Val Glu Asn Glu Lys Asp  
 1155 1160 1165  
 Ala Lys Val Ser Ile Ser Lys Ser Thr Tyr Asn Lys Met Arg Gln Lys  
 1170 1175 1180  
 Lys Lys Glu Lys Lys Glu Leu Phe His Asn Lys Asp Cys Glu Lys Lys  
 1185 1190 1195 1200  
 Glu Lys Asn Ser Trp Glu Arg Met Arg His Thr Gly Thr Glu Lys Met  
 1205 1210 1215  
 Ala Ser Glu Ser Glu Thr Pro Thr Gly Ala Ile Ser Gln Tyr Lys Glu  
 1220 1225 1230  
 Arg Met Pro Ser Val Thr His Ser Pro Glu Ile Met Asp Leu Ser Glu  
 1235 1240 1245  
 Leu Arg Pro Phe Ser Lys Pro Glu Ile Ala Leu Thr Glu Ala Leu Arg  
 1250 1255 1260  
 Leu Leu Ala Asp Glu Asp Trp Glu Lys Lys Ile Glu Gly Leu Asn Phe  
 1265 1270 1275 1280  
 Ile Arg Cys Leu Ala Ala Phe His Ser Glu Ile Leu Asn Thr Lys Leu  
 1285 1290 1295  
 His Glu Thr Asn Phe Ala Val Val Gln Glu Val Lys Asn Leu Arg Ser  
 1300 1305 1310  
 Gly Val Ser Arg Ala Ala Val Val Cys Leu Ser Asp Leu Phe Thr Tyr  
 1315 1320 1325  
 Leu Lys Lys Ser Met Asp Gln Glu Leu Asp Thr Thr Val Lys Val Leu  
 1330 1335 1340  
 Leu His Lys Ala Gly Glu Ser Asn Thr Phe Ile Arg Glu Asp Val Asp  
 1345 1350 1355 1360  
 Lys Ala Leu Arg Ala Met Val Asn Asn Val Thr Pro Ala Arg Ala Val  
 1365 1370 1375  
 Val Ser Leu Ile Asn Gly Gly Gln Arg Tyr Tyr Gly Arg Lys Met Leu  
 1380 1385 1390  
 Phe Phe Met Met Cys His Pro Asn Phe Glu Lys Met Leu Glu Lys Tyr  
 1395 1400 1405  
 Val Pro Ser Lys Asp Leu Pro Tyr Ile Lys Asp Ser Val Arg Asn Leu  
 1410 1415 1420



Gln Gln Lys Gly Leu Gly Glu Ile Pro Leu Asp Thr Pro Ser Ala Lys  
 1425 1430 1435 1440  
 Gly Arg Arg Ser His Thr Gly Ser Val Gly Asn Thr Arg Ser Ser Ser  
 1445 1450 1455  
 Val Ser Arg Asp Ala Phe Asn Ser Ala Glu Arg Ala Val Thr Glu Val  
 1460 1465 1470  
 Arg Glu Val Thr Arg Lys Ser Val Pro Arg Asn Ser Leu Glu Ser Ala  
 1475 1480 1485  
 Glu Tyr Leu Lys Leu Ile Thr Gly Leu Leu Asn Ala Lys Asp Phe Arg  
 1490 1495 1500  
 Asp Arg Ile Asn Gly Ile Lys Gln Leu Leu Ser Asp Thr Glu Asn Asn  
 1505 1510 1515 1520  
 Gln Asp Leu Val Val Gly Asn Ile Val Lys Ile Phe Asp Ala Phe Lys  
 1525 1530 1535  
 Ser Arg Leu His Asp Ser Asn Ser Lys Val Asn Leu Val Ala Leu Glu  
 1540 1545 1550  
 Thr Met His Lys Met Ile Pro Leu Leu Arg Asp His Leu Ser Pro Ile  
 1555 1560 1565  
 Ile Asn Met Leu Ile Pro Ala Ile Val Asp Asn Asn Leu Asn Ser Lys  
 1570 1575 1580  
 Asn Pro Gly Ile Tyr Ala Ala Ala Thr Asn Val Val Gln Ala Leu Ser  
 1585 1590 1595 1600  
 Gln His Val Asp Asn Tyr Leu Leu Leu Gln Pro Phe Cys Thr Lys Ala  
 1605 1610 1615  
 Gln Phe Leu Asn Gly Lys Ala Lys Gln Asp Met Thr Glu Lys Leu Ala  
 1620 1625 1630  
 Asp Ile Val Thr Glu Leu Tyr Gln Arg Lys Pro His Ala Thr Glu Gln  
 1635 1640 1645  
 Lys Val Leu Val Val Leu Trp His Leu Leu Gly Asn Met Thr Asn Ser  
 1650 1655 1660  
 Gly Ser Leu Pro Gly Ala Gly Gly Asn Ile Arg Thr Ala Thr Ala Lys  
 1665 1670 1675 1680  
 Leu Ser Lys Ala Leu Phe Ala Gln Met Gly Gln Asn Leu Leu Asn Gln  
 1685 1690 1695  
 Ala Ala Ser Gln Pro Pro His Ile Lys Lys Ser Leu Glu Glu Leu Leu  
 1700 1705 1710  
 Asp Met Thr Ile Leu Asn Glu Leu \*  
 1715 1720

&lt;210&gt; 1549

&lt;211&gt; 341

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1549

Met Val Phe Phe Thr Cys Asn Ala Cys Gly Glu Ser Val Lys Lys Ile  
 1 5 10 15  
 Gln Val Glu Lys His Val Ser Val Cys Arg Asn Cys Glu Cys Leu Ser  
 20 25 30  
 Cys Ile Asp Cys Gly Lys Asp Phe Trp Gly Asp Asp Tyr Lys Asn His  
 35 40 45  
 Val Lys Cys Ile Ser Glu Asp Gln Lys Tyr Gly Gly Lys Gly Tyr Glu  
 50 55 60  
 Gly Lys Thr His Lys Gly Asp Ile Lys Gln Gln Ala Trp Ile Gln Lys  
 65 70 75 80  
 Ile Ser Glu Leu Ile Lys Arg Pro Asn Val Ser Pro Lys Val Arg Glu  
 85 90 95  
 Leu Leu Glu Gln Ile Ser Ala Phe Asp Asn Val Pro Arg Lys Lys Ala  
 100 105 110  
 Lys Phe Gln Asn Trp Met Lys Asn Ser Leu Lys Val His Asn Glu Ser  
 115 120 125

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Ile Leu Asp Gln Val Trp Asn Ile Phe Ser Glu Ala Ser Asn Ser Glu
130      135      140
Pro Val Asn Lys Glu Gln Asp Gln Arg Pro Leu His Pro Val Ala Asn
145      150      155      160
Pro His Ala Glu Ile Ser Thr Lys Val Pro Ala Ser Lys Val Lys Asp
      165      170      175
Ala Val Glu Gln Gln Gly Glu Val Lys Lys Asn Lys Arg Glu Arg Lys
      180      185      190
Glu Glu Arg Gln Lys Lys Arg Lys Arg Glu Lys Lys Glu Leu Lys Leu
      195      200      205
Glu Asn His Gln Glu Asn Ser Arg Asn Gln Lys Pro Lys Lys Arg Lys
      210      215      220
Lys Gly Gln Glu Ala Asp Leu Glu Ala Gly Gly Glu Glu Val Pro Glu
      225      230      235      240
Ala Asn Gly Ser Ala Gly Lys Arg Ser Lys Lys Lys Lys Gln Arg Lys
      245      250      255
Asp Ser Ala Ser Glu Glu Glu Ala Arg Val Gly Ala Gly Lys Arg Lys
      260      265      270
Arg Arg His Ser Glu Val Glu Thr Asp Ser Lys Lys Lys Lys Met Lys
      275      280      285
Leu Pro Glu His Pro Glu Gly Gly Glu Pro Glu Asp Asp Glu Ala Pro
      290      295      300
Ala Lys Asp Pro Trp Gln Met Leu Leu Ile Lys Cys Ser Ile Tyr Phe
      305      310      315      320
Pro Leu Thr Ala Arg Trp Lys Pro Gln Asn Pro Glu Glu His Arg Lys
      325      330      335
Ile Thr Ala Ser *
      340

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<210> 1550
<211> 187
<212> PRT
<213> Homo sapiens

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      <400> 1550
Met Ala Ser Pro Ser Lys Ala Val Ile Val Pro Gly Asn Gly Gly Gly
1      5      10      15
Asp Val Thr Thr His Gly Trp Tyr Gly Trp Val Lys Lys Glu Leu Glu
      20      25      30
Lys Ile Pro Gly Phe Gln Cys Leu Ala Lys Asn Met Pro Asp Pro Ile
      35      40      45
Thr Ala Arg Glu Ser Ile Trp Leu Pro Phe Met Glu Thr Glu Leu His
      50      55      60
Cys Asp Glu Lys Thr Ile Ile Ile Gly His Ser Ser Gly Ala Ile Ala
      65      70      75      80
Ala Met Arg Tyr Ala Glu Thr His Arg Val Tyr Ala Ile Val Leu Val
      85      90      95
Ser Ala Tyr Thr Ser Asp Leu Gly Asp Glu Asn Glu Arg Ala Ser Gly
      100      105      110
Tyr Phe Thr Arg Pro Trp Gln Trp Glu Lys Ile Lys Ala Asn Cys Pro
      115      120      125
Tyr Ile Val Gln Phe Gly Ser Thr Asp Asp Pro Phe Leu Pro Trp Lys
      130      135      140
Glu Gln Gln Glu Val Ala Asp Arg Leu Glu Thr Lys Leu His Lys Phe
      145      150      155      160
Thr Asp Cys Gly His Phe Gln Asn Thr Glu Phe His Glu Leu Ile Thr
      165      170      175
Val Val Lys Ser Leu Leu Lys Val Pro Ala *
      180      185      186

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<210> 1551  
 <211> 726  
 <212> PRT  
 <213> Homo sapiens

<400> 1551  
 Met Ala Met Ala Met Ser Asp Ser Gly Ala Ser Arg Leu Arg Arg Gln  
 1 5 10 15  
 Leu Glu Ser Gly Gly Phe Glu Ala Arg Leu Tyr Val Lys Gln Leu Ser  
 20 25 30  
 Gln Gln Ser Asp Gly Asp Arg Asp Leu Gln Glu His Arg Gln Arg Ile  
 35 40 45  
 Gln Ala Leu Ala Glu Glu Thr Ala Gln Asn Leu Lys Arg Asn Val Tyr  
 50 55 60  
 Gln Asn Tyr Arg Gln Phe Ile Glu Thr Ala Arg Glu Ile Ser Tyr Leu  
 65 70 75 80  
 Glu Ser Glu Met Tyr Gln Leu Ser His Leu Leu Thr Glu Gln Lys Ser  
 85 90 95  
 Ser Leu Glu Ser Ile Pro Leu Thr Leu Leu Pro Ala Ala Ala Ala Ala  
 100 105 110  
 Gly Ala Ala Ala Ala Ser Gly Gly Glu Glu Gly Val Gly Gly Ala Gly  
 115 120 125  
 Gly Arg Asp His Leu Arg Gly Gln Ala Gly Phe Phe Ser Thr Pro Gly  
 130 135 140  
 Gly Ala Ser Arg Asp Gly Ser Gly Pro Gly Glu Glu Gly Lys Gln Arg  
 145 150 155 160  
 Thr Leu Thr Thr Leu Leu Glu Lys Val Glu Gly Cys Arg His Leu Leu  
 165 170 175  
 Glu Thr Pro Gly Gln Tyr Leu Val Tyr Asn Gly Asp Leu Val Glu Tyr  
 180 185 190  
 Asp Ala Asp His Met Ala Gln Leu Gln Arg Val His Gly Phe Leu Met  
 195 200 205  
 Asn Asp Cys Leu Leu Val Ala Thr Trp Leu Pro Gln Arg Arg Gly Met  
 210 215 220  
 Tyr Arg Tyr Asn Ala Leu Tyr Ser Leu Asp Gly Leu Ala Val Val Asn  
 225 230 235 240  
 Val Lys Asp Asn Pro Pro Met Lys Asp Met Phe Lys Leu Leu Met Phe  
 245 250 255  
 Pro Glu Asn Arg Ile Phe Gln Ala Glu Asn Ala Lys Ile Lys Arg Glu  
 260 265 270  
 Trp Leu Glu Val Leu Glu Asp Thr Lys Arg Ala Leu Ser Glu Lys Arg  
 275 280 285  
 Arg Arg Glu Gln Glu Glu Ala Ala Ala Pro Arg Gly Pro Pro Gln Val  
 290 295 300  
 Thr Ser Lys Ala Thr Asn Pro Phe Glu Asp Asp Glu Glu Glu Glu Pro  
 305 310 315 320  
 Ala Val Pro Glu Val Glu Glu Glu Lys Val Asp Leu Ser Met Glu Trp  
 325 330 335  
 Ile Gln Glu Leu Pro Glu Asp Leu Asp Val Cys Ile Ala Gln Arg Asp  
 340 345 350  
 Phe Glu Gly Ala Val Asp Leu Leu Asp Lys Leu Asn His Tyr Leu Glu  
 355 360 365  
 Asp Lys Pro Ser Pro Pro Pro Val Lys Glu Leu Arg Ala Lys Val Glu  
 370 375 380  
 Glu Arg Val Arg Gln Leu Thr Glu Val Leu Val Phe Glu Leu Ser Pro  
 385 390 395 400  
 Asp Arg Ser Leu Arg Gly Gly Pro Lys Ala Thr Arg Arg Ala Val Ser  
 405 410 415  
 Gln Leu Ile Arg Leu Gly Gln Cys Thr Lys Ala Cys Glu Leu Phe Leu  
 420 425 430  
 Arg Asn Arg Ala Ala Ala Val His Thr Ala Ile Arg Gln Leu Arg Ile  
 435 440 445

Glu Gly Ala Thr Leu Leu Tyr Ile His Lys Leu Cys His Val Phe Phe  
 450 455 460  
 Thr Ser Leu Leu Glu Thr Ala Arg Glu Phe Glu Ile Asp Phe Ala Gly  
 465 470 475 480  
 Thr Asp Ser Gly Cys Tyr Ser Ala Phe Val Val Trp Ala Arg Ser Ala  
 485 490 495  
 Met Gly Met Phe Val Asp Ala Phe Ser Lys Gln Val Phe Asp Ser Lys  
 500 505 510  
 Glu Ser Leu Ser Thr Ala Ala Glu Cys Val Lys Val Ala Lys Glu His  
 515 520 525  
 Cys Gln Gln Leu Gly Asp Ile Gly Leu Asp Leu Thr Phe Ile Ile His  
 530 535 540  
 Ala Leu Leu Val Lys Asp Ile Gln Gly Ala Leu His Ser Tyr Lys Glu  
 545 550 555 560  
 Ile Ile Ile Glu Ala Thr Lys His Arg Asn Ser Glu Glu Met Trp Arg  
 565 570 575  
 Arg Met Asn Leu Met Thr Pro Glu Ala Leu Gly Lys Leu Lys Glu Glu  
 580 585 590  
 Met Lys Ser Cys Gly Val Ser Asn Phe Glu Gln Tyr Thr Gly Asp Asp  
 595 600 605  
 Cys Trp Val Asn Leu Ser Tyr Thr Val Val Ala Phe Thr Lys Gln Thr  
 610 615 620  
 Met Gly Phe Leu Glu Glu Ala Leu Lys Leu Tyr Phe Pro Glu Leu His  
 625 630 635 640  
 Met Val Leu Leu Glu Ser Leu Val Glu Ile Ile Leu Val Ala Val Gln  
 645 650 655  
 His Val Asp Tyr Ser Leu Arg Cys Glu Gln Asp Pro Glu Lys Lys Ala  
 660 665 670  
 Phe Ile Arg Gln Asn Ala Ser Phe Leu Tyr Glu Thr Val Leu Pro Val  
 675 680 685  
 Val Glu Lys Arg Phe Glu Glu Gly Val Gly Lys Pro Ala Lys Gln Leu  
 690 695 700  
 Gln Asp Leu Arg Asn Ala Ser Arg Leu Ile Arg Val Asn Pro Glu Ser  
 705 710 715 720  
 Thr Thr Ser Val Val \*  
 725

&lt;210&gt; 1552

&lt;211&gt; 354

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1552

Met Glu Asp Gly Val Leu Lys Glu Gly Phe Leu Val Lys Arg Gly His  
 1 5 10 15  
 Ile Val His Asn Trp Lys Ala Arg Trp Phe Ile Leu Arg Gln Asn Thr  
 20 25 30  
 Leu Val Tyr Tyr Lys Leu Glu Gly Gly Arg Arg Val Thr Pro Pro Lys  
 35 40 45  
 Gly Arg Ile Leu Leu Asp Gly Cys Thr Ile Thr Cys Pro Cys Leu Glu  
 50 55 60  
 Tyr Glu Asn Arg Pro Leu Leu Ile Lys Leu Lys Thr Gln Thr Ser Thr  
 65 70 75 80  
 Glu Tyr Phe Leu Glu Ala Cys Ser Arg Glu Glu Arg Asp Ala Trp Ala  
 85 90 95  
 Phe Glu Ile Thr Gly Ala Ile His Ala Gly Gln Pro Gly Lys Val Gln  
 100 105 110  
 Gln Leu His Ser Leu Arg Asn Ser Phe Lys Leu Pro Pro His Ile Ser  
 115 120 125  
 Leu His Arg Ile Val Asp Lys Met His Asp Ser Asn Thr Gly Ile Arg  
 130 135 140

Ser Ser Pro Asn Met Glu Gln Gly Ser Thr Tyr Lys Lys Thr Phe Leu  
 145 150 155 160  
 Gly Ser Ser Leu Val Asp Trp Leu Ile Ser Asn Ser Phe Thr Ala Ser  
 165 170 175  
 Arg Leu Glu Ala Val Thr Leu Ala Ser Met Leu Met Glu Glu Asn Phe  
 180 185 190  
 Leu Arg Pro Val Gly Val Arg Ser Met Gly Ala Ile Arg Ser Gly Asp  
 195 200 205  
 Leu Ala Glu Gln Phe Leu Asp Asp Ser Thr Ala Leu Tyr Thr Phe Ala  
 210 215 220  
 Glu Ser Tyr Lys Lys Lys Ile Ser Pro Lys Glu Glu Ile Ser Leu Ser  
 225 230 235 240  
 Thr Val Glu Leu Ser Gly Thr Val Val Lys Gln Gly Tyr Leu Ala Lys  
 245 250 255  
 Gln Gly His Lys Arg Lys Asn Trp Lys Val Arg Arg Phe Val Leu Arg  
 260 265 270  
 Lys Asp Pro Ala Phe Leu His Tyr Tyr Asp Pro Ser Lys Glu Glu Asn  
 275 280 285  
 Arg Pro Val Gly Gly Phe Ser Leu Arg Gly Ser Leu Val Ser Ala Leu  
 290 295 300  
 Glu Asp Asn Gly Val Pro Thr Gly Val Lys Gly Asn Val Gln Gly Asn  
 305 310 315 320  
 Leu Phe Lys Val Ile Thr Lys Asp Asp Thr His Tyr Tyr Ile Gln Ala  
 325 330 335  
 Ser Ser Lys Ala Glu Arg Ala Glu Trp Ile Glu Ala Ile Lys Lys Leu  
 340 345 350  
 Thr \*  
 353

<210> 1553  
 <211> 1009  
 <212> PRT  
 <213> Homo sapiens

<400> 1553  
 Met Gly Arg Asn Ser Lys His Thr Ser Gln Ser Arg Ala Glu Glu Val  
 1 5 10 15  
 Asp Tyr Gly Glu Asn Glu Asp Gly Thr Gln Val Ser Pro Gly Ala  
 20 25 30  
 His Tyr Cys Ser Pro Thr Gly Ala Gly Cys Pro Arg Pro Cys Ala Asp  
 35 40 45  
 Thr Pro Gly Pro Gln Pro Gln Pro Met Asp Leu Arg Val Gly Gln Arg  
 50 55 60  
 Pro Pro Val Glu Pro Pro Glu Pro Thr Leu Leu Ala Leu Gln Arg  
 65 70 75 80  
 Pro Gln Arg Leu His His Leu Phe Leu Ala Gly Leu Gln Gln  
 85 90 95  
 Arg Ser Val Glu Pro Met Arg Leu Ser Met Asp Thr Pro Met Pro Glu  
 100 105 110  
 Leu Gln Val Gly Pro Gln Glu Gln Glu Leu Arg Gln Leu Leu His Lys  
 115 120 125  
 Asp Lys Ser Lys Arg Ser Ala Val Ala Ser Ser Val Val Lys Gln Lys  
 130 135 140  
 Leu Ala Glu Val Ile Leu Lys Lys Gln Gln Ala Ala Leu Glu Arg Thr  
 145 150 155 160  
 Val His Pro Asn Ser Pro Gly Ile Pro Tyr Arg Thr Leu Glu Pro Leu  
 165 170 175  
 Glu Thr Glu Gly Ala Thr Arg Ser Met Leu Ser Ser Phe Leu Pro Pro  
 180 185 190  
 Val Pro Ser Leu Pro Ser Asp Pro Pro Glu His Phe Pro Leu Arg Lys  
 195 200 205

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Thr Val Ser Glu Pro Asn Leu Lys Leu Arg Tyr Lys Pro Lys Lys Ser
210                215                220
Leu Glu Arg Arg Lys Asn Pro Leu Leu Arg Lys Glu Ser Ala Pro Pro
225                230                235                240
Ser Leu Arg Arg Arg Pro Ala Glu Thr Leu Gly Asp Ser Ser Pro Ser
245                250                255
Ser Ser Ser Thr Pro Ala Ser Gly Cys Ser Ser Pro Asn Asp Ser Glu
260                265                270
His Gly Pro Asn Pro Ile Leu Gly Ser Glu Ala Leu Leu Gly Gln Arg
275                280                285
Leu Arg Leu Gln Glu Thr Ser Val Ala Pro Phe Ala Leu Pro Thr Val
290                295                300
Ser Leu Leu Pro Ala Ile Thr Leu Gly Leu Pro Ala Pro Ala Arg Ala
305                310                315                320
Asp Ser Asp Arg Arg Thr His Pro Thr Leu Gly Pro Arg Gly Pro Ile
325                330                335
Leu Gly Ser Pro His Thr Pro Leu Phe Leu Pro His Gly Leu Glu Pro
340                345                350
Glu Ala Gly Gly Thr Leu Pro Ser Arg Leu Gln Pro Ile Leu Leu Leu
355                360                365
Asp Pro Ser Gly Ser His Ala Pro Leu Leu Thr Val Pro Gly Leu Gly
370                375                380
Pro Leu Pro Phe His Phe Ala Gln Ser Leu Met Thr Thr Glu Arg Leu
385                390                395                400
Ser Gly Ser Gly Leu His Trp Pro Leu Ser Arg Thr Arg Ser Glu Pro
405                410                415
Leu Pro Pro Ser Ala Thr Ala Pro Pro Pro Gly Pro Met Gln Pro
420                425                430
Arg Leu Glu Gln Leu Lys Thr His Val Gln Val Ile Lys Arg Ser Ala
435                440                445
Lys Pro Ser Glu Lys Pro Arg Leu Arg Gln Ile Pro Ser Ala Glu Asp
450                455                460
Leu Glu Thr Asp Gly Gly Gly Pro Gly Gln Val Val Asp Asp Gly Leu
465                470                475                480
Glu His Arg Glu Leu Gly His Gly Gln Pro Glu Ala Arg Gly Pro Ala
485                490                495
Pro Leu Gln Gln His Pro Gln Val Leu Leu Trp Glu Gln Gln Arg Leu
500                505                510
Ala Gly Arg Leu Pro Arg Gly Ser Thr Gly Asp Thr Val Leu Leu Pro
515                520                525
Leu Ala Gln Gly Gly His Arg Pro Leu Ser Arg Ala Gln Ser Ser Pro
530                535                540
Ala Ala Pro Ala Ser Leu Ser Ala Pro Glu Pro Ala Ser Gln Ala Arg
545                550                555                560
Val Leu Ser Ser Ser Glu Thr Pro Ala Arg Thr Leu Pro Phe Thr Thr
565                570                575
Gly Leu Ile Tyr Asp Ser Val Met Leu Lys His Gln Cys Ser Cys Gly
580                585                590
Asp Asn Ser Arg His Pro Glu His Ala Gly Arg Ile Gln Ser Ile Trp
595                600                605
Ser Arg Leu Gln Glu Arg Gly Leu Arg Ser Gln Cys Glu Cys Leu Arg
610                615                620
Gly Arg Lys Ala Ser Leu Glu Glu Leu Gln Ser Val His Ser Glu Arg
625                630                635                640
His Val Leu Leu Tyr Gly Thr Asn Pro Leu Ser Arg Leu Lys Leu Asp
645                650                655
Asn Gly Lys Leu Ala Gly Leu Leu Ala Gln Arg Met Phe Val Met Leu
660                665                670
Pro Cys Gly Gly Val Gly Val Asp Thr Asp Thr Ile Trp Asn Glu Leu
675                680                685
His Ser Ser Asn Ala Ala Arg Trp Ala Ala Gly Ser Val Thr Asp Leu
690                695                700
Ala Phe Lys Val Ala Ser Arg Glu Leu Lys Asn Gly Phe Ala Val Val
705                710                715                720

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<210> 1554
<211> 197
<212> PRT
<213> Homo sapiens
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<400> 1554															
Met	Ala	Ala	Leu	Gly	Glu	Pro	Val	Arg	Leu	Glu	Arg	Asp	Ile	Cys	Arg
1				5					10					15	
Ala	Ile	Glu	Leu	Leu	Glu	Lys	Leu	Gln	Arg	Ser	Gly	Glu	Val	Pro	Pro
			20					25					30		
Gln	Lys	Leu	Gln	Ala	Leu	Gln	Arg	Val	Leu	Gln	Ser	Glu	Phe	Cys	Asn
		35				40						45			
Ala	Val	Arg	Glu	Val	Tyr	Glu	His	Val	Tyr	Glu	Thr	Val	Asp	Ile	Ser
	50					55					60				
Ser	Ser	Pro	Glu	Val	Arg	Ala	Asn	Ala	Thr	Ala	Lys	Ala	Thr	Val	Ala
65					70					75					80
Ala	Phe	Ala	Ala	Ser	Glu	Gly	His	Ser	His	Pro	Arg	Val	Val	Glu	Leu
			85						90					95	
Pro	Lys	Thr	Glu	Glu	Gly	Leu	Gly	Phe	Asn	Ile	Met	Gly	Gly	Lys	Glu
			100					105					110		
Gln	Asn	Ser	Pro	Ile	Tyr	Ile	Ser	Arg	Ile	Ile	Pro	Gly	Gly	Ile	Ala
		115					120					125			

Asp Arg His Gly Gly Leu Lys Arg Gly Asp Gln Leu Leu Ser Val Asn  
 130 135 140  
 Gly Val Ser Val Glu Gly Glu His His Glu Lys Ala Val Glu Leu Leu  
 145 150 155 160  
 Lys Ala Ala Gln Gly Lys Val Lys Leu Val Val Arg Tyr Thr Pro Lys  
 165 170 175  
 Val Leu Glu Glu Met Glu Ser Arg Phe Glu Lys Met Arg Ser Ala Lys  
 180 185 190  
 Arg Arg Gln Gln Thr  
 195 197

<210> 1555  
 <211> 272  
 <212> PRT  
 <213> Homo sapiens

<400> 1555  
 Met Ala Glu Thr Ser Leu Leu Glu Ala Gly Ala Ser Ala Ala Ser Thr  
 1 5 10 15  
 Ala Ala Ala Leu Glu Asn Leu Gln Val Glu Ala Ser Cys Ser Val Cys  
 20 25 30  
 Leu Glu Tyr Leu Lys Glu Pro Val Ile Ile Glu Cys Gly His Asn Phe  
 35 40 45  
 Cys Lys Ala Cys Ile Thr Arg Trp Trp Glu Asp Leu Glu Arg Asp Phe  
 50 55 60  
 Pro Cys Pro Val Cys Arg Lys Thr Ser Arg Tyr Arg Ser Leu Arg Pro  
 65 70 75 80  
 Asn Arg Gln Leu Gly Ser Met Val Glu Ile Ala Lys Gln Leu Gln Ala  
 85 90 95  
 Val Lys Arg Lys Ile Arg Asp Glu Ser Leu Cys Pro Gln His His Glu  
 100 105 110  
 Ala Leu Ser Leu Phe Cys Tyr Glu Asp Gln Glu Ala Val Cys Leu Ile  
 115 120 125  
 Cys Ala Ile Ser His Thr His Arg Ala His Thr Val Val Pro Leu Asp  
 130 135 140  
 Asp Ala Thr Gln Glu Tyr Lys Glu Lys Leu Gln Lys Cys Leu Glu Pro  
 145 150 155 160  
 Leu Glu Gln Lys Leu Gln Glu Ile Thr Arg Cys Lys Ser Ser Glu Glu  
 165 170 175  
 Lys Lys Pro Gly Glu Leu Lys Arg Leu Val Glu Ser Arg Arg Gln Gln  
 180 185 190  
 Ile Leu Arg Glu Phe Glu Glu Leu His Arg Arg Leu Asp Glu Glu Gln  
 195 200 205  
 Gln Val Leu Leu Ser Arg Leu Glu Glu Glu Glu Gln Asp Ile Leu Gln  
 210 215 220  
 Arg Leu Arg Glu Asn Ala Ala His Leu Gly Asp Lys Arg Arg Asp Leu  
 225 230 235 240  
 Ala His Leu Ala Ala Glu Val Glu Gly Lys Cys Leu Gln Ser Gly Phe  
 245 250 255  
 Glu Met Leu Lys Val Arg Pro Leu Pro Leu His Ser Pro Ser Gly \*  
 260 265 270 271

<210> 1556  
 <211> 276  
 <212> PRT  
 <213> Homo sapiens

<400> 1556



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Met Phe Thr Leu Arg Gly Leu Gly Gly Pro Gly Ala Ile Ala Trp Ile
 1           5           10           15
Ser Gln Ala Phe Asp Asp Asp Ser Ala Leu Leu Lys His Glu Leu Ala
          20           25           30
Tyr Cys Leu Gly Gln Met Gln Asp Ala Arg Ala Ile Pro Met Leu Val
          35           40           45
Asp Val Leu Gln Asp Thr Arg Gln Glu Pro Met Val Arg His Glu Ala
          50           55           60
Gly Glu Ala Leu Gly Ala Ile Gly Asp Pro Glu Val Leu Glu Ile Leu
          65           70           75           80
Lys Gln Tyr Ser Ser Asp Pro Val Ile Glu Val Ala Glu Thr Cys Gln
          85           90           95
Leu Ala Val Arg Arg Leu Glu Trp Leu Gln Gln His Gly Gly Glu Pro
          100          105          110
Ala Ala Gly Pro Tyr Leu Ser Val Asp Pro Ala Pro Pro Ala Glu Glu
          115          120          125
Arg Asp Val Gly Arg Leu Arg Glu Ala Leu Leu Asp Glu Ser Arg Pro
          130          135          140
Leu Phe Glu Arg Tyr Arg Ala Met Phe Ala Leu Arg Asn Ala Gly Gly
          145          150          155          160
Glu Glu Ala Ala Leu Ala Leu Ala Glu Gly Leu His Cys Gly Ser Ala
          165          170          175
Leu Phe Arg His Glu Val Gly Tyr Val Leu Gly Gln Leu Gln His Glu
          180          185          190
Ala Ala Val Pro Gln Leu Ala Ala Ala Leu Ala Arg Cys Thr Glu Asn
          195          200          205
Pro Met Val Arg His Glu Cys Ala Glu Ala Leu Gly Ala Ile Ala Arg
          210          215          220
Pro Ala Cys Leu Ala Ala Leu Gln Ala His Ala Asp Asp Pro Glu Arg
          225          230          235          240
Val Val Arg Glu Ser Cys Glu Val Ala Leu Asp Met Tyr Glu His Glu
          245          250          255
Thr Gly Arg Ala Phe Gln Tyr Ala Asp Gly Leu Glu Gln Leu Arg Gly
          260          265          270
Ala Pro Ser *
          275

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&lt;210&gt; 1557

&lt;211&gt; 187

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1557

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Met Thr Asp Gly Gln Leu Arg Ser Lys Arg Asp Glu Phe Trp Asp Thr
 1           5           10           15
Ala Pro Ala Phe Glu Gly Arg Lys Glu Ile Trp Asp Ala Leu Lys Ala
          20           25           30
Ala Ala Tyr Ala Ala Glu Ala Asn Asp His Glu Leu Ala Gln Ala Ile
          35           40           45
Leu Asp Gly Ala Ser Ile Thr Leu Pro His Gly Thr Leu Cys Glu Cys
          50           55           60
Tyr Asp Glu Leu Gly Asn Arg Tyr Gln Leu Pro Ile Tyr Cys Leu Ser
          65           70           75           80
Pro Pro Val Asn Leu Leu Glu His Thr Glu Glu Glu Ser Leu Glu
          85           90           95
Pro Pro Glu Pro Pro Pro Ser Val Arg Arg Glu Phe Pro Leu Lys Val
          100          105          110
Arg Leu Ser Thr Gly Lys Asp Val Arg Leu Ser Ala Ser Leu Pro Asp
          115          120          125
Thr Val Gly Gln Leu Lys Arg Gln Leu His Ala Gln Glu Gly Ile Glu
          130          135          140

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Pro Ser Trp Gln Arg Trp Phe Phe Ser Gly Lys Leu Leu Thr Asp Arg  
 145 150 155 160  
 Thr Arg Leu Gln Glu Thr Lys Ile Gln Lys Asp Phe Val Ile Gln Val  
 165 170 175  
 Ile Ile Asn Gln Pro Pro Pro Pro Gln Asp \*  
 180 185 186

<210> 1558  
 <211> 1078  
 <212> PRT  
 <213> Homo sapiens

<400> 1558  
 Met Ala Pro Arg Lys Arg Ser His His Gly Leu Gly Phe Leu Cys Cys  
 1 5 10 15  
 Phe Gly Gly Ser Asp Ile Pro Glu Ile Asn Leu Arg Asp Asn His Pro  
 20 25 30  
 Leu Gln Phe Met Glu Phe Ser Ser Pro Ile Pro Asn Ala Glu Glu Leu  
 35 40 45  
 Asn Ile Arg Phe Ala Glu Leu Val Asp Glu Leu Asp Leu Thr Asp Lys  
 50 55 60  
 Asn Arg Glu Ala Met Phe Ala Leu Pro Pro Glu Lys Lys Trp Gln Ile  
 65 70 75 80  
 Tyr Cys Ser Lys Lys Lys Glu Gln Glu Asp Pro Asn Lys Leu Ala Thr  
 85 90 95  
 Ser Trp Pro Asp Tyr Tyr Ile Asp Arg Ile Asn Ser Met Ala Ala Met  
 100 105 110  
 Gln Ser Leu Tyr Ala Phe Asp Glu Glu Glu Thr Glu Met Arg Asn Gln  
 115 120 125  
 Val Val Glu Asp Leu Lys Thr Ala Leu Arg Thr Gln Pro Met Arg Phe  
 130 135 140  
 Val Thr Arg Phe Ile Glu Leu Glu Gly Leu Thr Cys Leu Leu Asn Phe  
 145 150 155 160  
 Leu Arg Ser Met Asp His Ala Thr Cys Glu Ser Arg Ile His Thr Ser  
 165 170 175  
 Leu Ile Gly Cys Ile Lys Ala Leu Met Asn Asn Ser Gln Gly Arg Ala  
 180 185 190  
 His Val Leu Ala Gln Pro Glu Ala Ile Ser Thr Ile Ala Gln Ser Leu  
 195 200 205  
 Arg Thr Glu Asn Ser Lys Thr Lys Val Ala Val Leu Glu Ile Leu Gly  
 210 215 220  
 Ala Val Cys Leu Val Pro Gly Gly His Lys Lys Val Leu Gln Ala Met  
 225 230 235 240  
 Leu His Tyr Gln Val Tyr Ala Ala Glu Arg Thr Arg Phe Gln Thr Leu  
 245 250 255  
 Leu Asn Glu Leu Asp Arg Ser Leu Gly Arg Tyr Arg Asp Glu Val Asn  
 260 265 270  
 Leu Lys Thr Ala Ile Met Ser Phe Ile Asn Ala Val Leu Asn Ala Gly  
 275 280 285  
 Ala Gly Glu Asp Asn Leu Glu Phe Arg Leu His Leu Arg Tyr Glu Phe  
 290 295 300  
 Leu Met Leu Gly Ile Gln Pro Val Ile Asp Lys Leu Arg Gln His Glu  
 305 310 315 320  
 Asn Ala Ile Leu Asp Lys His Leu Asp Phe Phe Glu Met Val Arg Asn  
 325 330 335  
 Glu Asp Asp Leu Glu Leu Ala Arg Arg Phe Asp Met Val His Ile Asp  
 340 345 350  
 Thr Lys Ser Ala Ser Gln Met Phe Glu Leu Ile His Lys Lys Leu Lys  
 355 360 365  
 Tyr Thr Glu Ala Tyr Pro Cys Leu Leu Ser Val Leu His His Cys Leu  
 370 375 380

Gln Met Pro Tyr Lys Arg Asn Gly Gly Tyr Phe Gln Gln Trp Gln Leu  
 385 390 395 400  
 Leu Asp Arg Ile Leu Gln Gln Ile Val Leu Gln Asp Glu Arg Gly Val  
 405 410 415  
 Asp Pro Asp Leu Ala Pro Leu Glu Asn Phe Asn Val Lys Asn Ile Val  
 420 425 430  
 Asn Met Leu Ile Asn Glu Asn Glu Val Lys Gln Trp Arg Asp Gln Ala  
 435 440 445  
 Glu Lys Phe Arg Lys Glu His Met Glu Leu Val Ser Arg Leu Glu Arg  
 450 455 460  
 Lys Glu Arg Glu Cys Glu Thr Lys Thr Leu Glu Lys Glu Glu Met Met  
 465 470 475 480  
 Arg Pro Leu Asn Lys Met Lys Asp Lys Leu Ala Arg Glu Ser Gln Glu  
 485 490 495  
 Leu Arg Gln Ala Arg Gly Gln Val Ala Glu Leu Val Ala Gln Leu Ser  
 500 505 510  
 Glu Leu Ser Thr Gly Pro Val Ser Ser Pro Pro Pro Pro Gly Gly Pro  
 515 520 525  
 Leu Thr Leu Ser Ser Ser Met Thr Thr Asn Asp Leu Pro Pro Pro Pro  
 530 535 540  
 Pro Pro Leu Pro Phe Ala Cys Cys Pro Pro Pro Pro Pro Pro Leu  
 545 550 555 560  
 Pro Pro Gly Gly Pro Pro Thr Pro Pro Gly Ala Pro Pro Cys Leu Gly  
 565 570 575  
 Met Gly Leu Pro Leu Pro Gln Asp Pro Tyr Pro Ser Ser Asp Val Pro  
 580 585 590  
 Leu Arg Lys Lys Arg Val Pro Gln Pro Ser His Pro Leu Lys Ser Phe  
 595 600 605  
 Asn Trp Val Lys Leu Asn Glu Glu Arg Val Pro Gly Thr Val Trp Asn  
 610 615 620  
 Glu Ile Asp Asp Met Gln Val Phe Arg Ile Leu Asp Leu Glu Asp Phe  
 625 630 635 640  
 Glu Lys Met Phe Ser Ala Tyr Gln Arg His Gln Glu Leu Ile Thr Asn  
 645 650 655  
 Pro Ser Gln Gln Lys Glu Leu Gly Ser Thr Glu Asp Ile Tyr Leu Ala  
 660 665 670  
 Ser Arg Lys Val Lys Glu Leu Ser Val Ile Asp Gly Arg Arg Ala Gln  
 675 680 685  
 Asn Cys Ile Ile Leu Leu Ser Lys Leu Lys Leu Ser Asn Glu Glu Ile  
 690 695 700  
 Arg Gln Ala Ile Leu Lys Met Asp Glu Gln Glu Asp Leu Ala Lys Asp  
 705 710 715 720  
 Met Leu Glu Gln Leu Leu Lys Phe Ile Pro Glu Lys Ser Asp Ile Asp  
 725 730 735  
 Leu Leu Glu Glu His Lys His Glu Ile Glu Arg Met Ala Arg Ala Asp  
 740 745 750  
 Arg Phe Leu Tyr Glu Met Ser Arg Ile Asp His Tyr Gln Gln Arg Leu  
 755 760 765  
 Gln Ala Leu Phe Phe Lys Lys Phe Gln Glu Arg Leu Ala Glu Ala  
 770 775 780  
 Lys Pro Lys Val Glu Ala Ile Leu Leu Ala Ser Arg Glu Leu Val Arg  
 785 790 795 800  
 Ser Lys Arg Leu Arg Gln Met Leu Glu Val Ile Leu Ala Ile Gly Asn  
 805 810 815  
 Phe Met Asn Lys Gly Gln Arg Gly Gly Ala Tyr Gly Phe Arg Val Ala  
 820 825 830  
 Ser Leu Asn Lys Ile Ala Asp Thr Lys Ser Ser Ile Asp Arg Asn Ile  
 835 840 845  
 Ser Leu Leu His Tyr Leu Ile Met Ile Leu Glu Lys His Phe Pro Asp  
 850 855 860  
 Ile Leu Asn Met Pro Ser Glu Leu Gln His Leu Pro Glu Ala Ala Lys  
 865 870 875 880  
 Val Asn Leu Ala Glu Leu Glu Lys Glu Val Gly Asn Leu Arg Arg Gly  
 885 890 895

Leu Arg Ala Val Glu Val Glu Leu Glu Tyr Gln Arg Arg Gln Val Arg  
                   900                  905                  910  
 Glu Pro Ser Asp Lys Phe Val Pro Val Met Ser Asp Phe Ile Thr Val  
                   915                  920                  925  
 Ser Ser Phe Ser Phe Ser Glu Leu Glu Asp Gln Leu Asn Glu Ala Arg  
                   930                  935                  940  
 Asp Lys Phe Ala Lys Ala Leu Met His Phe Gly Glu His Asp Ser Lys  
   945                  950                  955                  960  
 Met Gln Pro Asp Glu Phe Phe Gly Ile Phe Asp Thr Phe Leu Gln Ala  
                   965                  970                  975  
 Phe Ser Glu Ala Arg Gln Asp Leu Glu Ala Met Arg Arg Arg Lys Glu  
                   980                  985                  990  
 Glu Glu Glu Arg Arg Ala Arg Met Glu Ala Met Leu Lys Glu Gln Arg  
                   995                  1000                  1005  
 Glu Arg Glu Arg Trp Gln Arg Gln Arg Lys Val Leu Ala Ala Gly Ser  
   1010                  1015                  1020  
 Ser Leu Glu Glu Gly Gly Glu Phe Asp Asp Leu Val Ser Ala Leu Arg  
  1025                  1030                  1035                  1040  
 Ser Gly Glu Val Phe Asp Lys Asp Leu Cys Lys Leu Lys Arg Ser Arg  
                   1045                  1050                  1055  
 Lys Arg Ser Gly Ser Gln Ala Leu Glu Val Thr Arg Glu Arg Ala Ile  
                   1060                  1065                  1070  
 Asn Arg Leu Asn Tyr \*  
           1075          1077

<210> 1559  
 <211> 260  
 <212> PRT  
 <213> Homo sapiens

<400> 1559  
 Met Thr Gln Gly Glu Lys Glu Arg Leu Arg Val Leu Leu Thr Leu Ser  
   1                  5                  10                  15  
 Leu Gly Leu Gly Pro Ser Ala His Thr Asp Gly Val Gly Gly Leu His  
                   20                  25                  30  
 Ser Ser Val Pro Ile Ala Leu Pro Phe Pro Thr Arg Met Leu Ala Gly  
                   35                  40                  45  
 Gln Leu Glu Ala Arg Asp Pro Lys Glu Gly Thr His Pro Glu Asp Pro  
   50                  55                  60  
 Cys Pro Gly Ala Gly Ala Val Met Glu Lys Thr Ala Val Ala Ala Glu  
   65                  70                  75                  80  
 Val Leu Thr Glu Asp Cys Asn Thr Gly Glu Met Pro Pro Leu Gln Gln  
                   85                  90                  95  
 Gln Ile Ile Arg Leu His Gln Glu Leu Gly Arg Gln Lys Ser Leu Trp  
                   100                  105                  110  
 Ala Asp Val His Gly Lys Leu Arg Ser His Ile Asp Ala Leu Arg Glu  
                   115                  120                  125  
 Gln Asn Met Glu Leu Arg Glu Lys Leu Arg Ala Leu Gln Leu Gln Arg  
   130                  135                  140  
 Trp Lys Ala Arg Lys Lys Ser Ala Ala Ser Pro His Ala Gly Gln Glu  
  145                  150                  155                  160  
 Ser His Thr Leu Ala Leu Glu Pro Ala Phe Gly Lys Ile Ser Pro Leu  
                   165                  170                  175  
 Ser Ala Asp Glu Glu Thr Ile Pro Lys Tyr Ala Gly His Lys Asn Gln  
                   180                  185                  190  
 Ser Ala Thr Leu Leu Gly Gln Arg Ser Ser Ser Asn Asn Ser Ala Pro  
                   195                  200                  205  
 Pro Lys Pro Met Ser Leu Lys Ile Glu Arg Ile Ser Ser Trp Lys Thr  
   210                  215                  220  
 Pro Pro Gln Glu Asn Arg Asp Lys Asn Leu Ser Arg Arg Arg Gln Asp  
  225                  230                  235                  240

Arg Arg Ala Thr Pro Thr Gly Arg Pro Thr Pro Cys Ala Glu Arg Arg  
 245 250 255  
 Gly Gly Val \*  
 259

<210> 1560  
 <211> 415  
 <212> PRT  
 <213> Homo sapiens

<400> 1560  
 Met Asn Pro Thr Leu Gly Leu Ala Ile Phe Leu Ala Val Leu Leu Thr  
 1 5 10 15  
 Val Lys Gly Leu Leu Lys Pro Ser Phe Ser Pro Arg Asn Tyr Lys Ala  
 20 25 30  
 Leu Ser Glu Val Gln Gly Trp Lys Gln Arg Met Ala Ala Lys Glu Leu  
 35 40 45  
 Ala Arg Gln Asn Met Asp Leu Gly Phe Lys Leu Leu Lys Lys Leu Ala  
 50 55 60  
 Phe Tyr Asn Pro Gly Arg Asn Ile Phe Leu Ser Pro Leu Ser Ile Ser  
 65 70 75 80  
 Thr Ala Phe Ser Met Leu Cys Leu Gly Ala Gln Asp Ser Thr Leu Asp  
 85 90 95  
 Glu Ile Lys Gln Gly Phe Asn Phe Arg Lys Met Pro Glu Lys Asp Leu  
 100 105 110  
 His Glu Gly Phe His Tyr Ile Ile His Glu Leu Thr Gln Lys Thr Gln  
 115 120 125  
 Asp Leu Lys Leu Ser Ile Gly Asn Thr Leu Phe Ile Asp Gln Arg Leu  
 130 135 140  
 Gln Pro Gln Arg Lys Phe Leu Glu Asp Ala Lys Asn Phe Tyr Ser Ala  
 145 150 155 160  
 Glu Thr Ile Leu Thr Asn Phe Gln Asn Leu Glu Met Ala Gln Lys Gln  
 165 170 175  
 Ile Asn Asp Phe Ile Ser Gln Lys Thr His Gly Lys Ile Asn Asn Leu  
 180 185 190  
 Ile Glu Asn Ile Asp Pro Gly Thr Val Met Leu Leu Ala Asn Tyr Ile  
 195 200 205  
 Phe Phe Arg Ala Arg Trp Lys His Glu Phe Asp Pro Asn Val Thr Lys  
 210 215 220  
 Glu Glu Asp Phe Phe Leu Glu Lys Asn Ser Ser Val Lys Val Pro Met  
 225 230 235 240  
 Met Phe Arg Ser Gly Ile Tyr Gln Val Gly Tyr Asp Asp Lys Leu Ser  
 245 250 255  
 Cys Thr Ile Leu Glu Ile Pro Tyr Gln Lys Asn Ile Thr Ala Ile Phe  
 260 265 270  
 Ile Leu Pro Asp Glu Gly Lys Leu Lys His Leu Glu Lys Gly Leu Gln  
 275 280 285  
 Val Asp Thr Phe Ser Arg Trp Lys Thr Leu Leu Ser Arg Arg Val Val  
 290 295 300  
 Asp Val Ser Val Pro Arg Leu His Met Thr Gly Thr Phe Asp Leu Lys  
 305 310 315 320  
 Lys Thr Leu Ser Tyr Ile Gly Val Ser Lys Ile Phe Glu Glu His Gly  
 325 330 335  
 Asp Leu Thr Lys Ile Ala Pro His Arg Ser Leu Lys Val Gly Glu Ala  
 340 345 350  
 Val Asn Lys Ala Glu Leu Lys Met Asp Glu Arg Gly Thr Glu Gly Ala  
 355 360 365  
 Ala Gly Thr Gly Ala Gln Thr Leu Pro Met Glu Thr Pro Leu Val Val  
 370 375 380  
 Lys Ile Asp Lys Pro Tyr Leu Leu Leu Ile Tyr Ser Glu Lys Ile Pro  
 385 390 395 400

Ser Val Leu Phe Leu Gly Lys Ile Val Asn Pro Ile Gly Lys \*  
 405 410 414

<210> 1561  
 <211> 1792  
 <212> PRT  
 <213> Homo sapiens

<400> 1561  
 Met Gln Cys Cys Leu Glu Tyr Val Gln Gln Phe Leu Thr Arg Leu Ile  
 1 5 10 15  
 Asn Leu Tyr Ile Ile Gln Asn Asn Ser Phe Ser Gln Ser Leu Ala Thr  
 20 25 30  
 Glu His Gln Gly Asp Leu Gly Arg Glu Gln Gly Glu Thr Ser Lys Trp  
 35 40 45  
 Asp Arg Asn Ser Gln Gly Asp Val Lys Glu Lys Asn Ile Ser Lys Gln  
 50 55 60  
 Lys Thr Ser Lys Glu Tyr Leu Ser Ala Phe Leu Ala Ala Cys Gln Leu  
 65 70 75 80  
 Phe Leu Glu Cys Ser Ser Phe Pro Val Tyr Ile Ala Glu Gly Asn His  
 85 90 95  
 Thr Ser Glu Leu Arg Ser Glu Lys Leu Glu Thr Asp Cys Glu His Val  
 100 105 110  
 Gln Pro Pro Gln Trp Leu Gln Thr Leu Met Asn Ala Cys Ser Gln Ala  
 115 120 125  
 Ser Asp Phe Ser Val Gln Ser Val Ala Ile Ser Leu Val Met Asp Leu  
 130 135 140  
 Val Gly Leu Thr Gln Ser Val Ala Met Val Thr Gly Glu Asn Ile Asn  
 145 150 155 160  
 Ser Val Glu Pro Ala Gln Pro Leu Ser Pro Asn Gln Gly Arg Val Ala  
 165 170 175  
 Val Val Ile Arg Pro Pro Leu Thr Gln Gly Asn Leu Arg Tyr Ile Ala  
 180 185 190  
 Glu Lys Thr Glu Phe Phe Lys His Val Ala Leu Thr Leu Trp Asp Gln  
 195 200 205  
 Leu Gly Asp Gly Thr Pro Gln His His Gln Lys Ser Val Glu Leu Phe  
 210 215 220  
 Tyr Gln Leu His Asn Leu Val Pro Ser Ser Ser Ile Cys Glu Asp Val  
 225 230 235 240  
 Ile Ser Gln Gln Leu Thr His Lys Asp Lys Lys Ile Arg Met Glu Ala  
 245 250 255  
 His Ala Lys Phe Ala Val Leu Trp His Leu Thr Arg Asp Leu His Ile  
 260 265 270  
 Asn Lys Ser Ser Ser Phe Val Arg Ser Phe Asp Arg Ser Leu Phe Ile  
 275 280 285  
 Met Leu Asp Ser Leu Asn Ser Leu Asp Gly Ser Thr Ser Ser Val Gly  
 290 295 300  
 Gln Ala Trp Leu Asn Gln Val Leu Gln Arg His Asp Ile Ala Arg Val  
 305 310 315 320  
 Leu Glu Pro Leu Leu Leu Leu Leu Leu His Pro Lys Thr Gln Arg Val  
 325 330 335  
 Ser Val Gln Arg Val Gln Ala Glu Arg Tyr Trp Asn Lys Ser Pro Cys  
 340 345 350  
 Tyr Pro Gly Glu Glu Ser Asp Lys His Phe Met Gln Asn Phe Ala Cys  
 355 360 365  
 Ser Asn Val Ser Gln Val Gln Leu Ile Thr Ser Lys Gly Asn Gly Glu  
 370 375 380  
 Lys Pro Leu Thr Met Asp Glu Ile Glu Asn Phe Ser Leu Thr Val Asn  
 385 390 395 400  
 Pro Leu Ser Asp Arg Leu Ser Leu Leu Ser Thr Ser Ser Glu Thr Ile  
 405 410 415

Pro Met Val Val Ser Asp Phe Asp Leu Pro Asp Gln Gln Ile Glu Ile  
 420 425 430  
 Leu Gln Ser Ser Asp Ser Gly Cys Ser Gln Ser Ser Ala Gly Asp Asn  
 435 440 445  
 Leu Ser Tyr Glu Val Asp Pro Glu Thr Val Asn Ala Gln Glu Asp Ser  
 450 455 460  
 Gln Met Pro Lys Glu Ser Ser Pro Asp Asp Asp Val Gln Gln Val Val  
 465 470 475 480  
 Phe Asp Leu Ile Cys Lys Val Val Ser Gly Leu Glu Val Glu Ser Ala  
 485 490 495  
 Ser Val Thr Ser Gln Leu Glu Ile Glu Ala Met Pro Pro Lys Cys Ser  
 500 505 510  
 Asp Ile Asp Pro Asp Glu Glu Thr Ile Lys Ile Glu Asp Asp Ser Ile  
 515 520 525  
 Arg Gln Ser Gln Asn Ala Leu Leu Ser Asn Glu Ser Ser Gln Phe Leu  
 530 535 540  
 Ser Val Ser Ala Glu Gly Gly His Glu Cys Val Ala Asn Gly Ile Ser  
 545 550 555 560  
 Arg Asn Ser Ser Ser Pro Cys Ile Ser Gly Thr Thr His Thr Leu His  
 565 570 575  
 Asp Ser Ser Val Ala Ser Ile Glu Thr Lys Ser Arg Gln Arg Ser His  
 580 585 590  
 Ser Ser Ile Gln Phe Ser Phe Lys Glu Lys Leu Ser Glu Lys Val Ser  
 595 600 605  
 Glu Lys Glu Thr Ile Val Lys Glu Ser Gly Lys Gln Pro Gly Ala Lys  
 610 615 620  
 Pro Lys Val Lys Leu Ala Arg Lys Lys Asp Asp Lys Lys Lys Ser  
 625 630 635 640  
 Ser Asn Glu Lys Leu Lys Gln Thr Ser Val Phe Phe Ser Asp Gly Leu  
 645 650 655  
 Asp Leu Glu Asn Trp Tyr Ser Cys Gly Glu Gly Asp Ile Ser Glu Ile  
 660 665 670  
 Glu Ser Asp Met Gly Ser Pro Gly Ser Arg Lys Ser Pro Asn Phe Asn  
 675 680 685  
 Ile His Pro Leu Tyr Gln His Val Leu Leu Tyr Leu Gln Leu Tyr Asp  
 690 695 700  
 Ser Ser Arg Thr Leu Tyr Ala Phe Ser Ala Ile Lys Ala Ile Leu Lys  
 705 710 715 720  
 Thr Asn Pro Ile Ala Phe Val Asn Ala Ile Ser Thr Thr Ser Val Asn  
 725 730 735  
 Asn Ala Tyr Thr Pro Gln Leu Ser Leu Leu Gln Asn Leu Leu Ala Arg  
 740 745 750  
 His Arg Ile Ser Val Met Gly Lys Asp Phe Tyr Ser His Ile Pro Val  
 755 760 765  
 Asp Ser Asn His Asn Phe Arg Ser Ser Met Tyr Ile Glu Ile Leu Ile  
 770 775 780  
 Ser Leu Cys Leu Tyr Tyr Met Arg Ser His Tyr Pro Thr His Val Lys  
 785 790 795 800  
 Val Thr Ala Gln Asp Leu Ile Gly Asn Arg Asn Met Gln Met Met Ser  
 805 810 815  
 Ile Glu Ile Leu Thr Leu Leu Phe Thr Glu Leu Ala Lys Val Ile Glu  
 820 825 830  
 Ser Ser Ala Lys Gly Phe Pro Ser Phe Ile Ser Asp Met Leu Ser Lys  
 835 840 845  
 Cys Lys Val Gln Lys Val Ile Leu His Cys Leu Leu Ser Ser Ile Phe  
 850 855 860  
 Ser Ala Gln Lys Trp His Ser Glu Lys Met Ala Gly Lys Asn Leu Val  
 865 870 875 880  
 Ala Val Glu Glu Gly Phe Ser Glu Asp Ser Leu Ile Asn Phe Ser Glu  
 885 890 895  
 Asp Glu Phe Asp Asn Gly Ser Thr Leu Gln Ser Gln Leu Leu Lys Val  
 900 905 910  
 Leu Gln Arg Leu Ile Val Leu Glu His Arg Val Met Thr Ile Pro Glu  
 915 920 925

Glu Asn Glu Thr Gly Phe Asp Phe Val Val Ser Asp Leu Glu His Ile  
 930 935 940  
 Ser Pro His Gln Pro Met Thr Ser Leu Gln Tyr Leu His Ala Gln Pro  
 945 950 955 960  
 Ile Thr Cys Gln Gly Met Phe Leu Cys Ala Val Ile Arg Ala Leu His  
 965 970 975  
 Gln His Cys Ala Cys Lys Met His Pro Gln Trp Ile Gly Leu Ile Thr  
 980 985 990  
 Ser Thr Leu Pro Tyr Met Gly Lys Val Leu Gln Arg Val Val Val Ser  
 995 1000 1005  
 Val Thr Leu Gln Leu Cys Arg Asn Leu Asp Asn Leu Ile Gln Gln Tyr  
 1010 1015 1020  
 Lys Tyr Glu Thr Gly Leu Ser Asp Ser Arg Pro Leu Trp Met Ala Ser  
 1025 1030 1035 1040  
 Ile Ile Pro Pro Asp Met Ile Leu Thr Leu Leu Glu Gly Ile Thr Ala  
 1045 1050 1055  
 Ile Ile His Tyr Cys Leu Leu Asp Pro Thr Thr Gln Tyr His Gln Leu  
 1060 1065 1070  
 Leu Val Ser Val Asp Gln Lys His Leu Phe Glu Ala Arg Ser Gly Ile  
 1075 1080 1085  
 Leu Ser Ile Leu His Met Ile Met Ser Ser Val Thr Leu Leu Trp Ser  
 1090 1095 1100  
 Ile Leu His Gln Ala Asp Ser Ser Glu Lys Met Thr Ile Ala Ala Ser  
 1105 1110 1115 1120  
 Ala Ser Leu Thr Thr Ile Asn Leu Gly Ala Thr Lys Asn Leu Arg Gln  
 1125 1130 1135  
 Gln Ile Leu Glu Leu Leu Gly Pro Ile Ser Met Asn His Gly Val His  
 1140 1145 1150  
 Phe Met Ala Ala Ile Ala Phe Val Trp Asn Glu Arg Arg Gln Asn Lys  
 1155 1160 1165  
 Thr Thr Thr Arg Thr Lys Val Ile Pro Ala Ala Ser Glu Glu Gln Leu  
 1170 1175 1180  
 Leu Leu Val Glu Leu Val Arg Ser Ile Ser Val Met Arg Ala Glu Thr  
 1185 1190 1195 1200  
 Val Ile Gln Thr Val Lys Glu Val Leu Lys Gln Pro Pro Ala Ile Ala  
 1205 1210 1215  
 Lys Asp Lys Lys His Leu Ser Leu Glu Val Cys Met Leu Gln Phe Phe  
 1220 1225 1230  
 Tyr Ala Tyr Ile Gln Arg Ile Pro Val Pro Asn Leu Val Asp Ser Trp  
 1235 1240 1245  
 Ala Ser Leu Leu Ile Leu Leu Lys Asp Ser Ile Gln Leu Ser Leu Pro  
 1250 1255 1260  
 Ala Pro Gly Gln Phe Leu Ile Leu Gly Val Leu Asn Glu Phe Ile Met  
 1265 1270 1275 1280  
 Lys Asn Pro Ser Leu Glu Asn Lys Lys Asp Gln Arg Asp Leu Gln Asp  
 1285 1290 1295  
 Val Thr His Lys Ile Val Asp Ala Ile Gly Ala Ile Ala Gly Ser Ser  
 1300 1305 1310  
 Leu Glu Gln Thr Thr Trp Leu Arg Arg Asn Leu Glu Val Lys Pro Ser  
 1315 1320 1325  
 Pro Lys Ile Met Val Asp Gly Thr Asn Leu Glu Ser Asp Val Glu Asp  
 1330 1335 1340  
 Met Leu Ser Pro Ala Met Glu Thr Ala Asn Ile Thr Pro Ser Val Tyr  
 1345 1350 1355 1360  
 Ser Val His Ala Leu Thr Leu Leu Ser Glu Val Leu Ala His Leu Leu  
 1365 1370 1375  
 Asp Met Val Phe Tyr Ser Asp Glu Lys Glu Arg Val Ile Pro Leu Leu  
 1380 1385 1390  
 Val Asn Ile Met His Tyr Val Val Pro Tyr Leu Arg Asn His Ser Ala  
 1395 1400 1405  
 His Asn Ala Pro Ser Tyr Arg Ala Cys Val Gln Leu Leu Ser Ser Leu  
 1410 1415 1420  
 Ser Gly Tyr Gln Tyr Thr Arg Arg Ala Trp Lys Lys Glu Ala Phe Asp  
 1425 1430 1435 1440



Leu Phe Met Asp Pro Ser Phe Phe Gln Met Asp Ala Ser Cys Val Asn  
 1445 1450 1455  
 His Trp Arg Ala Ile Met Asp Asn Leu Met Thr His Asp Lys Thr Thr  
 1460 1465 1470  
 Phe Arg Asp Leu Met Thr Arg Val Ala Val Ala Gln Ser Ser Ser Leu  
 1475 1480 1485  
 Asn Leu Phe Ala Asn Arg Asp Val Glu Leu Glu Gln Arg Ala Met Leu  
 1490 1495 1500  
 Leu Lys Arg Leu Ala Phe Ala Ile Phe Ser Ser Glu Ile Asp Gln Tyr  
 1505 1510 1515 1520  
 Gln Lys Tyr Leu Pro Asp Ile Gln Glu Arg Leu Val Glu Ser Leu Arg  
 1525 1530 1535  
 Leu Pro Gln Val Pro Thr Leu His Ser Gln Val Phe Leu Phe Phe Arg  
 1540 1545 1550  
 Val Leu Leu Leu Arg Met Ser Pro Gln His Leu Thr Ser Leu Trp Pro  
 1555 1560 1565  
 Thr Met Ile Thr Glu Leu Val Gln Val Phe Leu Leu Met Glu Gln Glu  
 1570 1575 1580  
 Leu Thr Ala Asp Glu Asp Ile Ser Arg Thr Ser Gly Pro Ser Val Ala  
 1585 1590 1595 1600  
 Gly Leu Glu Thr Thr Tyr Thr Gly Gly Asn Gly Phe Ser Thr Ser Tyr  
 1605 1610 1615  
 Asn Ser Gln Arg Trp Leu Asn Leu Tyr Leu Ser Ala Cys Lys Phe Leu  
 1620 1625 1630  
 Asp Leu Ala Leu Ala Leu Pro Ser Glu Asn Leu Pro Gln Phe Gln Met  
 1635 1640 1645  
 Tyr Arg Trp Ala Phe Ile Pro Glu Ala Ser Asp Asp Ser Gly Leu Glu  
 1650 1655 1660  
 Val Arg Arg Gln Gly Ile His Gln Arg Glu Phe Lys Pro Tyr Val Val  
 1665 1670 1675 1680  
 Arg Leu Ala Lys Leu Leu Arg Lys Arg Ala Lys Lys Asn Pro Glu Glu  
 1685 1690 1695  
 Asp Asn Ser Gly Arg Thr Leu Gly Trp Glu Pro Gly His Leu Leu Leu  
 1700 1705 1710  
 Thr Ile Cys Thr Val Arg Ser Met Glu Gln Leu Leu Pro Phe Phe Asn  
 1715 1720 1725  
 Val Leu Ser Gln Val Phe Asn Ser Lys Val Thr Ser Arg Cys Gly Gly  
 1730 1735 1740  
 His Ser Gly Ser Pro Ile Leu Tyr Ser Asn Ala Phe Pro Asn Lys Asp  
 1745 1750 1755 1760  
 Met Lys Leu Glu Asn His Lys Pro Cys Ser Ser Lys Ala Arg Gln Lys  
 1765 1770 1775  
 Ile Glu Glu Met Val Glu Lys Asp Phe Leu Glu Gly Met Ile Lys Thr  
 1780 1785 1790 1792

&lt;210&gt; 1562

&lt;211&gt; 1743

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1562

Met Gln Cys Cys Leu Glu Tyr Val Gln Gln Phe Leu Thr Arg Leu Ile  
 1 5 10 15  
 Asn Leu Tyr Ile Ile Gln Asn Asn Ser Phe Ser Gln Ser Leu Ala Thr  
 20 25 30  
 Glu His Gln Gly Asp Leu Gly Arg Glu Gln Gly Glu Thr Ser Lys Trp  
 35 40 45  
 Asp Arg Asn Ser Gln Gly Asp Val Lys Glu Lys Asn Ile Ser Lys Gln  
 50 55 60

Lys Thr Ser Lys Glu Tyr Leu Ser Ala Phe Leu Ala Ala Cys Gln Leu  
 65 70 75 80  
 Phe Leu Glu Cys Ser Ser Phe Pro Val Tyr Ile Ala Glu Gly Asn His  
 85 90 95  
 Thr Ser Glu Leu Arg Ser Glu Lys Leu Glu Thr Asp Cys Glu His Val  
 100 105 110  
 Gln Pro Pro Gln Trp Leu Gln Thr Leu Met Asn Ala Cys Ser Gln Ala  
 115 120 125  
 Ser Asp Phe Ser Val Gln Ser Val Ala Ile Ser Leu Val Met Asp Leu  
 130 135 140  
 Val Gly Leu Thr Gln Ser Val Ala Met Val Thr Gly Glu Asn Ile Asn  
 145 150 155 160  
 Ser Val Glu Pro Ala Gln Pro Leu Ser Pro Asn Gln Gly Arg Val Ala  
 165 170 175  
 Val Val Ile Arg Pro Pro Leu Thr Gln Gly Asn Leu Arg Tyr Ile Ala  
 180 185 190  
 Glu Lys Thr Glu Phe Phe Lys His Val Ala Leu Thr Leu Trp Asp Gln  
 195 200 205  
 Leu Gly Asp Gly Thr Pro Gln His His Gln Lys Ser Val Glu Leu Phe  
 210 215 220  
 Tyr Gln Leu His Asn Leu Val Pro Ser Ser Ser Ile Cys Glu Asp Val  
 225 230 235 240  
 Ile Ser Gln Gln Leu Thr His Lys Asp Lys Lys Ile Arg Met Glu Ala  
 245 250 255  
 His Ala Lys Phe Ala Val Leu Trp His Leu Thr Arg Asp Leu His Ile  
 260 265 270  
 Asn Lys Ser Ser Ser Phe Val Arg Ser Phe Asp Arg Ser Leu Phe Ile  
 275 280 285  
 Met Leu Asp Ser Leu Asn Ser Leu Asp Gly Ser Thr Ser Ser Val Gly  
 290 295 300  
 Gln Ala Trp Leu Asn Gln Val Leu Gln Arg His Asp Ile Ala Arg Val  
 305 310 315 320  
 Leu Glu Pro Leu Leu Leu Leu Leu His Pro Lys Thr Gln Arg Val  
 325 330 335  
 Ser Val Gln Arg Val Gln Ala Glu Arg Tyr Trp Asn Lys Ser Pro Cys  
 340 345 350  
 Tyr Pro Gly Glu Glu Ser Asp Lys His Phe Met Gln Asn Phe Ala Cys  
 355 360 365  
 Ser Asn Val Ser Gln Val Gln Leu Ile Thr Ser Lys Gly Asn Gly Glu  
 370 375 380  
 Lys Pro Leu Thr Met Asp Glu Ile Glu Asn Phe Ser Leu Thr Val Asn  
 385 390 395 400  
 Pro Leu Ser Asp Arg Leu Ser Leu Leu Ser Thr Ser Ser Glu Thr Ile  
 405 410 415  
 Pro Met Val Val Ser Asp Phe Asp Leu Pro Asp Gln Gln Ile Glu Ile  
 420 425 430  
 Leu Gln Ser Ser Asp Ser Gly Cys Ser Gln Ser Ser Ala Gly Asp Asn  
 435 440 445  
 Leu Ser Tyr Glu Val Asp Pro Glu Thr Val Asn Ala Gln Glu Asp Ser  
 450 455 460  
 Gln Met Pro Lys Glu Ser Ser Pro Asp Asp Asp Val Gln Gln Val Val  
 465 470 475 480  
 Phe Asp Leu Ile Cys Lys Val Val Ser Gly Leu Glu Val Glu Ser Ala  
 485 490 495  
 Ser Val Thr Ser Gln Leu Glu Ile Glu Ala Met Pro Pro Lys Cys Ser  
 500 505 510  
 Asp Ile Asp Pro Asp Glu Glu Thr Ile Lys Ile Glu Asp Asp Ser Ile  
 515 520 525  
 Arg Gln Ser Gln Asn Ala Leu Leu Ser Asn Glu Ser Ser Gln Phe Leu  
 530 535 540  
 Ser Val Ser Ala Glu Gly Gly His Glu Cys Val Ala Asn Gly Ile Ser  
 545 550 555 560  
 Arg Asn Ser Ser Ser Pro Cys Ile Ser Gly Thr Thr His Thr Leu His  
 565 570 575

Asp Ser Ser Val Ala Ser Ile Glu Thr Lys Ser Arg Gln Arg Ser His  
 580 585 590  
 Ser Ser Ile Gln Phe Ser Phe Lys Glu Lys Leu Ser Glu Lys Val Ser  
 595 600 605  
 Glu Lys Glu Thr Ile Val Lys Glu Ser Gly Lys Gln Pro Gly Ala Lys  
 610 615 620  
 Pro Lys Val Lys Leu Ala Arg Lys Lys Asp Asp Asp Lys Lys Lys Ser  
 625 630 635 640  
 Ser Asn Glu Lys Leu Lys Gln Thr Ser Val Phe Phe Ser Asp Gly Leu  
 645 650 655  
 Asp Leu Glu Asn Trp Tyr Ser Cys Gly Glu Gly Asp Ile Ser Glu Ile  
 660 665 670  
 Glu Ser Asp Met Gly Ser Pro Gly Ser Arg Lys Ser Pro Asn Phe Asn  
 675 680 685  
 Ile His Pro Leu Tyr Gln His Val Leu Leu Tyr Leu Gln Leu Tyr Asp  
 690 695 700  
 Ser Ser Arg Thr Leu Tyr Ala Phe Ser Ala Ile Lys Ala Ile Leu Lys  
 705 710 715 720  
 Thr Asn Pro Ile Ala Phe Val Asn Ala Ile Ser Thr Thr Ser Val Asn  
 725 730 735  
 Asn Ala Tyr Thr Pro Gln Leu Ser Leu Leu Gln Asn Leu Leu Ala Arg  
 740 745 750  
 His Arg Ile Ser Val Met Gly Lys Asp Phe Tyr Ser His Ile Pro Val  
 755 760 765  
 Asp Ser Asn His Asn Phe Arg Ser Ser Met Tyr Ile Glu Ile Leu Ile  
 770 775 780  
 Ser Leu Cys Leu Tyr Tyr Met Arg Ser His Tyr Pro Thr His Val Lys  
 785 790 795 800  
 Val Thr Ala Gln Asp Leu Ile Gly Asn Arg Asn Met Gln Met Met Ser  
 805 810 815  
 Ile Glu Ile Leu Thr Leu Leu Phe Thr Glu Leu Ala Lys Val Ile Glu  
 820 825 830  
 Ser Ser Ala Lys Gly Phe Pro Ser Phe Ile Ser Asp Met Leu Ser Lys  
 835 840 845  
 Cys Lys Val Gln Lys Val Ile Leu His Cys Leu Leu Ser Ser Ile Phe  
 850 855 860  
 Ser Ala Gln Lys Trp His Ser Glu Lys Met Ala Gly Lys Asn Leu Val  
 865 870 875 880  
 Ala Val Glu Glu Gly Phe Ser Glu Asp Ser Leu Ile Asn Phe Ser Glu  
 885 890 895  
 Asp Glu Phe Asp Asn Gly Ser Thr Leu Gln Ser Gln Leu Leu Lys Val  
 900 905 910  
 Leu Gln Arg Leu Ile Val Leu Glu His Arg Val Met Thr Ile Pro Glu  
 915 920 925  
 Glu Asn Glu Thr Gly Phe Asp Phe Val Val Ser Asp Leu Glu His Ile  
 930 935 940  
 Ser Pro His Gln Pro Met Thr Ser Leu Gln Tyr Leu His Ala Gln Pro  
 945 950 955 960  
 Ile Thr Cys Gln Gly Met Phe Leu Cys Ala Val Ile Arg Ala Leu His  
 965 970 975  
 Gln His Cys Ala Cys Lys Met His Pro Gln Trp Ile Gly Leu Ile Thr  
 980 985 990  
 Ser Thr Leu Pro Tyr Met Gly Lys Val Leu Gln Arg Val Val Val Ser  
 995 1000 1005  
 Val Thr Leu Gln Leu Cys Arg Asn Leu Asp Asn Leu Ile Gln Gln Tyr  
 1010 1015 1020  
 Lys Tyr Glu Thr Gly Leu Ser Asp Ser Arg Pro Leu Trp Met Ala Ser  
 1025 1030 1035 1040  
 Ile Ile Pro Pro Asp Met Ile Leu Thr Leu Leu Glu Gly Ile Thr Ala  
 1045 1050 1055  
 Ile Ile His Tyr Cys Leu Leu Asp Pro Thr Thr Gln Tyr His Gln Leu  
 1060 1065 1070  
 Leu Val Ser Val Asp Gln Lys His Leu Phe Glu Ala Arg Ser Gly Ile  
 1075 1080 1085

Leu Ser Ile Leu His Met Ile Met Ser Ser Val Thr Leu Leu Trp Ser  
 1090 1095 1100  
 Ile Leu His Gln Ala Asp Ser Ser Glu Lys Met Thr Ile Ala Ala Ser  
 1105 1110 1115 1120  
 Ala Ser Leu Thr Thr Ile Asn Leu Gly Ala Thr Lys Asn Leu Arg Gln  
 1125 1130 1135  
 Gln Ile Leu Glu Leu Leu Gly Pro Ile Ser Met Asn His Gly Val His  
 1140 1145 1150  
 Phe Met Ala Ala Ile Ala Phe Val Trp Asn Glu Arg Arg Gln Asn Lys  
 1155 1160 1165  
 Thr Thr Thr Arg Thr Lys Val Ile Pro Ala Ala Ser Glu Glu Gln Leu  
 1170 1175 1180  
 Leu Leu Val Glu Leu Val Arg Ser Ile Ser Val Met Arg Ala Glu Thr  
 1185 1190 1195 1200  
 Val Ile Gln Thr Val Lys Glu Val Leu Lys Gln Pro Pro Ala Ile Ala  
 1205 1210 1215  
 Lys Asp Lys Lys His Leu Ser Leu Glu Val Cys Met Leu Gln Phe Phe  
 1220 1225 1230  
 Tyr Ala Tyr Ile Gln Arg Ile Pro Val Pro Asn Leu Val Asp Ser Trp  
 1235 1240 1245  
 Ala Ser Leu Leu Ile Leu Leu Lys Asp Ser Ile Gln Leu Ser Leu Pro  
 1250 1255 1260  
 Ala Pro Gly Gln Phe Leu Ile Leu Gly Val Leu Asn Glu Phe Ile Met  
 1265 1270 1275 1280  
 Lys Asn Pro Ser Leu Glu Asn Lys Lys Asp Gln Arg Asp Leu Gln Asp  
 1285 1290 1295  
 Val Thr His Lys Ile Val Asp Ala Ile Gly Ala Ile Ala Gly Ser Ser  
 1300 1305 1310  
 Leu Glu Gln Thr Thr Trp Leu Arg Arg Asn Leu Glu Val Lys Pro Ser  
 1315 1320 1325  
 Pro Lys Ile Met Val Asp Gly Thr Asn Leu Glu Ser Asp Val Glu Asp  
 1330 1335 1340  
 Met Leu Ser Pro Ala Met Glu Thr Ala Asn Ile Thr Pro Ser Val Tyr  
 1345 1350 1355 1360  
 Ser Val His Ala Leu Thr Leu Leu Ser Glu Val Leu Ala His Leu Leu  
 1365 1370 1375  
 Asp Met Val Phe Tyr Ser Asp Glu Lys Glu Arg Val Ile Pro Leu Leu  
 1380 1385 1390  
 Val Asn Ile Met His Tyr Val Val Pro Tyr Leu Arg Asn His Ser Trp  
 1395 1400 1405  
 Arg Ala Ile Met Asp Asn Leu Met Thr His Asp Lys Thr Thr Phe Arg  
 1410 1415 1420  
 Asp Leu Met Thr Arg Val Ala Val Ala Gln Ser Ser Ser Leu Asn Leu  
 1425 1430 1435 1440  
 Phe Ala Asn Arg Asp Val Glu Leu Glu Gln Arg Ala Met Leu Leu Lys  
 1445 1450 1455  
 Arg Leu Ala Phe Ala Ile Phe Ser Ser Glu Ile Asp Gln Tyr Gln Lys  
 1460 1465 1470  
 Tyr Leu Pro Asp Ile Gln Glu Arg Leu Val Glu Ser Leu Arg Leu Pro  
 1475 1480 1485  
 Gln Val Pro Thr Leu His Ser Gln Val Phe Leu Phe Phe Arg Val Leu  
 1490 1495 1500  
 Leu Leu Arg Met Ser Pro Gln His Leu Thr Ser Leu Trp Pro Thr Met  
 1505 1510 1515 1520  
 Ile Thr Glu Leu Val Gln Val Phe Leu Leu Met Glu Gln Glu Leu Thr  
 1525 1530 1535  
 Ala Asp Glu Asp Ile Ser Arg Thr Ser Gly Pro Ser Val Ala Gly Leu  
 1540 1545 1550  
 Glu Thr Thr Tyr Thr Gly Gly Asn Gly Phe Ser Thr Ser Tyr Asn Ser  
 1555 1560 1565  
 Gln Arg Trp Leu Asn Leu Tyr Leu Ser Ala Cys Lys Phe Leu Asp Leu  
 1570 1575 1580  
 Ala Leu Ala Leu Pro Ser Glu Asn Leu Pro Gln Phe Gln Met Tyr Arg  
 1585 1590 1595 1600

Trp Ala Phe Ile Pro Glu Ala Ser Asp Asp Ser Gly Leu Glu Val Arg  
                     1605                    1610                    1615  
 Arg Gln Gly Ile His Gln Arg Glu Phe Lys Pro Tyr Val Val Arg Leu  
                     1620                    1625                    1630  
 Ala Lys Leu Leu Arg Lys Arg Ala Lys Lys Asn Pro Glu Glu Asp Asn  
                     1635                    1640                    1645  
 Ser Gly Arg Thr Leu Gly Trp Glu Pro Gly His Leu Leu Leu Thr Ile  
                     1650                    1655                    1660  
 Cys Thr Val Arg Ser Met Glu Gln Leu Leu Pro Phe Phe Asn Val Leu  
 1665                    1670                    1675                    1680  
 Ser Gln Val Phe Asn Ser Lys Val Thr Ser Arg Cys Gly Gly His Ser  
                     1685                    1690                    1695  
 Gly Ser Pro Ile Leu Tyr Ser Asn Ala Phe Pro Asn Lys Asp Met Lys  
                     1700                    1705                    1710  
 Leu Glu Asn His Lys Pro Cys Ser Ser Lys Ala Arg Gln Lys Ile Glu  
                     1715                    1720                    1725  
 Glu Met Val Glu Lys Asp Phe Leu Glu Gly Met Ile Lys Thr \*  
                     1730                    1735                    1740                    1742

<210> 1563  
 <211> 574  
 <212> PRT  
 <213> Homo sapiens

<400> 1563  
 Met Leu Glu Asn Tyr Gln Asn Leu Leu Ala Leu Gly Pro Pro Leu His  
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 Lys Pro Asp Val Ile Ser His Leu Glu Arg Gly Glu Glu Pro Trp Ser  
                     20                    25                    30  
 Met Gln Arg Glu Val Pro Arg Gly Pro Cys Pro Glu Trp Glu Leu Lys  
                     35                    40                    45  
 Ala Val Pro Ser Gln Gln Gln Gly Ile Cys Lys Glu Glu Pro Ala Gln  
                     50                    55                    60  
 Glu Pro Ile Met Glu Arg Pro Leu Gly Gly Ala Gln Ala Trp Gly Arg  
                     65                    70                    75                    80  
 Gln Ala Gly Ala Leu Gln Arg Ser Gln Ala Ala Pro Trp Ala Pro Ala  
                     85                    90                    95  
 Pro Ala Met Val Trp Asp Val Pro Val Glu Glu Phe Pro Leu Arg Cys  
                     100                    105                    110  
 Pro Leu Phe Ala Gln Gln Arg Val Pro Glu Gly Gly Pro Leu Leu Asp  
                     115                    120                    125  
 Thr Arg Lys Asn Val Gln Ala Thr Glu Gly Arg Thr Lys Ala Pro Ala  
                     130                    135                    140  
 Arg Leu Cys Ala Gly Glu Asn Ala Ser Thr Pro Ser Glu Pro Glu Lys  
                     145                    150                    155                    160  
 Phe Pro Gln Val Arg Arg Gln Arg Gly Ala Gly Ala Gly Glu Gly Glu  
                     165                    170                    175  
 Phe Val Cys Gly Glu Cys Gly Lys Ala Phe Arg Gln Ser Ser Ser Leu  
                     180                    185                    190  
 Thr Leu His Arg Arg Trp His Ser Arg Glu Lys Ala Tyr Lys Cys Asp  
                     195                    200                    205  
 Glu Cys Gly Lys Ala Phe Thr Trp Ser Thr Asn Leu Leu Glu His Arg  
                     210                    215                    220  
 Arg Ile His Thr Gly Glu Lys Pro Phe Phe Cys Gly Glu Cys Gly Lys  
                     225                    230                    235                    240  
 Ala Phe Ser Cys His Ser Ser Leu Asn Val His Gln Arg Ile His Thr  
                     245                    250                    255  
 Gly Glu Arg Pro Tyr Lys Cys Ser Ala Cys Glu Lys Ala Phe Ser Cys  
                     260                    265                    270  
 Ser Ser Leu Leu Ser Met His Leu Arg Val His Thr Gly Glu Lys Pro  
                     275                    280                    285

Tyr Arg Cys Gly Glu Cys Gly Lys Ala Phe Asn Gln Arg Thr His Leu  
 290 295 300  
 Thr Arg His His Arg Ile His Thr Gly Glu Lys Pro Tyr Gln Cys Gly  
 305 310 315 320  
 Ser Cys Gly Lys Ala Phe Thr Cys His Ser Ser Leu Thr Val His Glu  
 325 330 335  
 Lys Ile His Ser Gly Asp Lys Pro Phe Lys Cys Ser Asp Cys Glu Lys  
 340 345 350  
 Ala Phe Asn Ser Arg Ser Arg Leu Thr Leu His Gln Arg Thr His Thr  
 355 360 365  
 Gly Glu Lys Pro Phe Lys Cys Ala Asp Cys Gly Lys Gly Phe Ser Cys  
 370 375 380  
 His Ala Tyr Leu Leu Val His Arg Arg Ile His Ser Gly Glu Lys Pro  
 385 390 395 400  
 Phe Lys Cys Asn Glu Cys Gly Lys Ala Phe Ser Ser His Ala Tyr Leu  
 405 410 415  
 Ile Val His Arg Arg Ile His Thr Gly Glu Lys Pro Phe Asp Cys Ser  
 420 425 430  
 Gln Cys Trp Lys Ala Phe Ser Cys His Ser Ser Leu Ile Val His Gln  
 435 440 445  
 Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Ser Glu Cys Gly Arg  
 450 455 460  
 Ala Phe Ser Gln Asn His Cys Leu Ile Lys His Gln Lys Ile His Ser  
 465 470 475 480  
 Gly Glu Lys Ser Phe Lys Cys Glu Lys Cys Gly Glu Met Phe Asn Trp  
 485 490 495  
 Ser Ser His Leu Thr Glu His Gln Arg Leu His Ser Glu Gly Lys Pro  
 500 505 510  
 Leu Ala Ile Gln Phe Asn Lys His Leu Leu Ser Thr Tyr Tyr Val Pro  
 515 520 525  
 Gly Ser Leu Leu Gly Ala Gly Asp Ala Gly Leu Arg Asp Val Asp Pro  
 530 535 540  
 Ile Asp Ala Leu Asp Val Ala Lys Leu Leu Cys Val Val Pro Pro Arg  
 545 550 555 560  
 Ala Gly Arg Asn Phe Ser Leu Gly Ser Lys Pro Arg Asn \*  
 565 570 573

<210> 1564  
 <211> 1073  
 <212> PRT  
 <213> Homo sapiens

<400> 1564  
 Met Pro Leu Arg His Trp Gly Met Ala Arg Gly Ser Lys Pro Val Gly  
 1 5 10 15  
 Asp Gly Ala Gln Pro Met Ala Ala Met Gly Gly Leu Lys Val Leu Leu  
 20 25 30  
 His Trp Ala Gly Pro Gly Gly Glu Pro Trp Val Thr Phe Ser Glu  
 35 40 45  
 Ser Ser Leu Thr Ala Glu Glu Val Cys Ile His Ile Ala His Lys Val  
 50 55 60  
 Gly Ile Thr Pro Pro Cys Phe Asn Leu Phe Ala Leu Phe Asp Ala Gln  
 65 70 75 80  
 Ala Gln Val Trp Leu Pro Pro Asn His Ile Leu Glu Ile Pro Arg Asp  
 85 90 95  
 Ala Ser Leu Met Leu Tyr Phe Arg Ile Arg Phe Tyr Phe Arg Asn Trp  
 100 105 110  
 His Gly Met Asn Pro Arg Glu Pro Ala Val Tyr Arg Cys Gly Pro Pro  
 115 120 125  
 Gly Thr Glu Ala Ser Ser Asp Gln Thr Ala Gln Gly Met Gln Leu Leu  
 130 135 140

Asp Pro Ala Ser Phe Glu Tyr Leu Phe Glu Gln Gly Lys His Glu Phe  
 145 150 155 160  
 Val Asn Asp Val Ala Ser Leu Trp Glu Leu Ser Thr Glu Glu Glu Ile  
 165 170 175  
 His His Phe Lys Asn Glu Ser Leu Gly Met Ala Phe Leu His Leu Cys  
 180 185 190  
 His Leu Ala Leu Arg His Gly Ile Pro Leu Glu Glu Val Ala Lys Lys  
 195 200 205  
 Thr Ser Phe Lys Asp Cys Ile Pro Arg Ser Phe Arg Arg His Ile Arg  
 210 215 220  
 Gln His Ser Ala Leu Thr Arg Leu Arg Leu Arg Asn Val Phe Arg Arg  
 225 230 235 240  
 Phe Leu Arg Asp Phe Gln Pro Gly Arg Leu Ser Gln Gln Met Val Met  
 245 250 255  
 Val Lys Tyr Leu Ala Thr Leu Glu Arg Leu Ala Pro Arg Phe Gly Thr  
 260 265 270  
 Glu Arg Val Pro Val Cys His Leu Arg Leu Leu Ala Gln Ala Glu Gly  
 275 280 285  
 Glu Pro Cys Tyr Ile Arg Asp Ser Gly Val Ala Pro Thr Asp Pro Gly  
 290 295 300  
 Pro Glu Ser Ala Ala Gly Pro Pro Thr His Glu Val Leu Val Thr Gly  
 305 310 315 320  
 Thr Gly Gly Ile Gln Trp Trp Pro Val Glu Glu Glu Val Asn Lys Glu  
 325 330 335  
 Glu Gly Ser Ser Gly Ser Ser Gly Arg Asn Pro Gln Ala Ser Leu Phe  
 340 345 350  
 Gly Lys Lys Ala Lys Ala His Lys Ala Phe Gly Gln Pro Ala Asp Arg  
 355 360 365  
 Pro Arg Glu Pro Leu Trp Ala Tyr Phe Cys Asp Phe Arg Asp Ile Thr  
 370 375 380  
 His Val Val Leu Lys Glu His Cys Val Ser Ile His Arg Gln Asp Asn  
 385 390 395 400  
 Lys Cys Leu Glu Leu Ser Leu Pro Ser Arg Ala Ala Ala Leu Ser Phe  
 405 410 415  
 Val Ser Leu Val Asp Gly Tyr Phe Arg Leu Thr Ala Asp Ser Ser His  
 420 425 430  
 Tyr Leu Cys His Glu Val Ala Pro Pro Arg Leu Val Met Ser Ile Arg  
 435 440 445  
 Asp Gly Ile His Gly Pro Leu Leu Glu Pro Phe Val Gln Ala Lys Leu  
 450 455 460  
 Arg Pro Glu Asp Gly Leu Tyr Leu Ile His Trp Ser Thr Ser His Pro  
 465 470 475 480  
 Tyr Arg Leu Ile Leu Thr Val Ala Gln Arg Ser Gln Ala Pro Asp Gly  
 485 490 495  
 Met Gln Ser Leu Arg Leu Arg Lys Phe Pro Ile Glu Gln Gln Asp Gly  
 500 505 510  
 Ala Phe Val Leu Glu Gly Trp Gly Arg Ser Phe Pro Ser Val Arg Glu  
 515 520 525  
 Leu Gly Ala Ala Leu Gln Gly Cys Leu Leu Arg Ala Gly Asp Asp Cys  
 530 535 540  
 Phe Ser Leu Arg Arg Cys Cys Leu Pro Gln Pro Gly Glu Thr Ser Asn  
 545 550 555 560  
 Leu Ile Ile Met Arg Gly Ala Arg Ala Ser Pro Arg Thr Leu Asn Leu  
 565 570 575  
 Ser Gln Leu Ser Phe His Arg Val Asp Gln Lys Glu Ile Thr Gln Leu  
 580 585 590  
 Ser His Leu Gly Gln Gly Thr Arg Thr Asn Val Tyr Glu Gly Arg Leu  
 595 600 605  
 Arg Val Glu Gly Ser Gly Asp Pro Glu Glu Gly Lys Met Asp Asp Glu  
 610 615 620  
 Asp Pro Leu Val Pro Gly Arg Asp Arg Gly Gln Glu Leu Arg Val Val  
 625 630 635 640  
 Leu Lys Val Leu Asp Pro Ser His His Asp Ile Ala Leu Ala Phe Tyr  
 645 650 655

Glu Thr Ala Ser Leu Met Ser Gln Val Ser His Thr His Leu Ala Phe  
                   660                                  665                                  670  
 Val His Gly Val Cys Val Arg Gly Pro Glu Asn Ile Met Val Thr Glu  
                   675                                  680                                  685  
 Tyr Val Glu His Gly Pro Leu Asp Val Trp Leu Arg Arg Glu Arg Gly  
                   690                                  695                                  700  
 His Val Pro Met Ala Trp Lys Met Val Val Ala Gln Gln Leu Ala Ser  
                   705                                  710                                  715                                  720  
 Ala Leu Ser Tyr Leu Glu Asn Lys Asn Leu Val His Gly Asn Val Cys  
                   725                                  730                                  735  
 Gly Arg Asn Ile Leu Leu Ala Arg Leu Gly Leu Ala Glu Gly Thr Ser  
                   740                                  745                                  750  
 Pro Phe Ile Lys Leu Ser Asp Pro Gly Val Gly Leu Gly Ala Leu Ser  
                   755                                  760                                  765  
 Arg Glu Glu Arg Val Glu Arg Ile Pro Trp Leu Ala Pro Glu Cys Leu  
                   770                                  775                                  780  
 Pro Gly Gly Ala Asn Ser Leu Ser Thr Ala Met Asp Lys Trp Gly Phe  
                   785                                  790                                  795                                  800  
 Gly Ala Thr Leu Leu Glu Ile Cys Phe Asp Gly Glu Ala Pro Leu Gln  
                   805                                  810                                  815  
 Ser Arg Ser Pro Ser Glu Lys Glu His Phe Tyr Gln Arg Gln His Arg  
                   820                                  825                                  830  
 Leu Pro Glu Pro Ser Cys Pro Gln Leu Ala Thr Leu Thr Ser Gln Cys  
                   835                                  840                                  845  
 Leu Thr Tyr Glu Pro Thr Gln Arg Pro Ser Phe Arg Thr Ile Leu Arg  
                   850                                  855                                  860  
 Asp Leu Thr Arg Leu Gln Pro His Asn Leu Ala Asp Val Leu Thr Val  
                   865                                  870                                  875                                  880  
 Asn Pro Asp Ser Pro Ala Ser Asp Pro Thr Val Phe His Lys Arg Tyr  
                   885                                  890                                  895  
 Leu Lys Lys Ile Arg Asp Leu Gly Glu Gly His Phe Gly Lys Val Ser  
                   900                                  905                                  910  
 Leu Tyr Cys Tyr Asp Pro Thr Asn Asp Gly Thr Gly Glu Met Val Ala  
                   915                                  920                                  925  
 Val Lys Ala Leu Lys Ala Asp Cys Gly Pro Gln His Arg Ser Gly Trp  
                   930                                  935                                  940  
 Lys Gln Glu Ile Asp Ile Leu Arg Thr Leu Tyr His Glu His Ile Ile  
                   945                                  950                                  955                                  960  
 Lys Tyr Lys Gly Cys Cys Glu Asp Gln Gly Glu Lys Ser Leu Gln Leu  
                   965                                  970                                  975  
 Val Met Glu Tyr Val Pro Leu Gly Ser Leu Arg Asp Tyr Leu Pro Arg  
                   980                                  985                                  990  
 His Ser Ile Gly Leu Ala Gln Leu Leu Leu Phe Ala Gln Gln Ile Cys  
                   995                                  1000                                  1005  
 Glu Gly Met Ala Tyr Leu His Ala Gln His Tyr Ile His Arg Asp Leu  
                   1010                                  1015                                  1020  
 Ala Ala Arg Asn Val Leu Leu Asp Asn Asp Arg Leu Val Lys Ile Gly  
                   1025                                  1030                                  1035                                  1040  
 Asp Phe Gly Leu Ala Lys Ala Val Pro Asp Ala Thr Ser Thr Thr Ala  
                   1045                                  1050                                  1055  
 Cys Ala Arg Met Gly Thr Ala Pro Cys Ser Gly Met Pro Gln Ser Ala  
                   1060                                  1065                                  1070                                  1072

\*

<210> 1565  
 <211> 1071  
 <212> PRT  
 <213> Homo sapiens

<400> 1565



Met Thr Ser Pro Ala Lys Phe Lys Lys Asp Lys Glu Ile Ile Ala Glu  
 1 5 10 15  
 Tyr Asp Thr Gln Val Lys Glu Ile Arg Ala Gln Leu Thr Glu Gln Met  
 20 25 30  
 Lys Cys Leu Asp Gln Gln Cys Glu Leu Arg Val Gln Leu Leu Gln Asp  
 35 40 45  
 Leu Gln Asp Phe Phe Arg Lys Lys Ala Glu Ile Glu Met Asp Tyr Ser  
 50 55 60  
 Arg Asn Leu Glu Lys Leu Ala Glu Arg Phe Leu Ala Lys Thr Cys Ser  
 65 70 75 80  
 Thr Lys Asp Gln Gln Phe Lys Lys Asp Gln Asn Val Leu Ser Pro Val  
 85 90 95  
 Asn Cys Trp Asn Leu Leu Leu Asn Gln Val Lys Arg Glu Ser Arg Asp  
 100 105 110  
 His Thr Thr Leu Ser Asp Ile Tyr Leu Asn Asn Ile Ile Pro Arg Phe  
 115 120 125  
 Val Gln Val Ser Glu Asp Ser Gly Arg Leu Phe Lys Lys Ser Lys Glu  
 130 135 140  
 Val Gly Gln Gln Leu Gln Asp Asp Leu Met Lys Val Leu Asn Glu Leu  
 145 150 155 160  
 Tyr Ser Val Met Lys Thr Tyr His Met Tyr Asn Ala Asp Ser Ile Ser  
 165 170 175  
 Ala Gln Ser Lys Leu Lys Glu Ala Glu Lys Gln Glu Glu Lys Gln Ile  
 180 185 190  
 Gly Lys Ser Val Lys Gln Glu Asp Arg Gln Thr Pro Arg Ser Pro Asp  
 195 200 205  
 Ser Thr Ala Asn Val Arg Ile Glu Glu Lys His Val Arg Arg Ser Ser  
 210 215 220  
 Val Lys Lys Ile Glu Lys Met Lys Glu Lys Arg Gln Ala Lys Tyr Thr  
 225 230 235 240  
 Glu Asn Lys Leu Lys Ala Ile Lys Ala Arg Asn Glu Tyr Leu Leu Ala  
 245 250 255  
 Leu Glu Ala Thr Asn Ala Ser Val Phe Lys Tyr Tyr Ile His Asp Leu  
 260 265 270  
 Ser Asp Leu Ile Asp Gln Cys Cys Asp Leu Gly Tyr His Ala Ser Leu  
 275 280 285  
 Asn Arg Ala Leu Arg Thr Phe Leu Ser Ala Glu Leu Asn Leu Glu Gln  
 290 295 300  
 Ser Lys His Glu Gly Leu Asp Ala Ile Glu Asn Ala Val Glu Asn Leu  
 305 310 315 320  
 Asp Ala Thr Ser Asp Lys Gln Arg Leu Met Glu Met Tyr Asn Asn Val  
 325 330 335  
 Phe Cys Pro Pro Met Lys Phe Glu Phe Gln Pro His Met Gly Asp Met  
 340 345 350  
 Ala Ser Gln Leu Cys Ala Gln Gln Pro Val Gln Ser Glu Leu Leu Gln  
 355 360 365  
 Arg Cys Gln Gln Leu Gln Ser Arg Leu Ser Thr Leu Lys Ile Glu Asn  
 370 375 380  
 Glu Glu Val Lys Lys Thr Met Glu Ala Thr Leu Gln Thr Ile Gln Asp  
 385 390 395 400  
 Ile Val Thr Val Glu Asp Phe Asp Val Ser Asp Cys Phe Gln Tyr Ser  
 405 410 415  
 Asn Ser Met Glu Ser Val Lys Ser Thr Val Ser Glu Thr Phe Met Ser  
 420 425 430  
 Lys Pro Ser Ile Ala Lys Arg Arg Ala Asn Gln Gln Glu Thr Glu Gln  
 435 440 445  
 Phe Tyr Phe Thr Lys Met Lys Glu Tyr Leu Glu Gly Arg Asn Leu Ile  
 450 455 460  
 Thr Lys Leu Gln Ala Lys His Asp Leu Leu Gln Lys Thr Leu Gly Glu  
 465 470 475 480  
 Ser Gln Arg Thr Asp Cys Ser Leu Ala Arg Arg Ser Ser Thr Val Arg  
 485 490 495  
 Lys Gln Asp Ser Ser Gln Ala Ile Pro Leu Val Val Glu Ser Cys Ile  
 500 505 510

Arg	Phe	Ile	Ser	Arg	His	Gly	Leu	Gln	His	Glu	Gly	Ile	Phe	Arg	Val
	515						520					525			
Ser	Gly	Ser	Gln	Val	Glu	Val	Asn	Asp	Ile	Lys	Asn	Ala	Phe	Glu	Arg
	530						535					540			
Gly	Glu	Asp	Pro	Leu	Ala	Gly	Asp	Gln	Asn	Asp	His	Asp	Met	Asp	Ser
545					550					555					560
Ile	Ala	Gly	Val	Leu	Lys	Leu	Tyr	Phe	Arg	Gly	Leu	Glu	His	Pro	Leu
				565					570					575	
Phe	Pro	Lys	Asp	Ile	Phe	His	Asp	Leu	Met	Ala	Cys	Val	Thr	Met	Asp
			580					585					590		
Asn	Leu	Gln	Glu	Arg	Ala	Leu	His	Ile	Arg	Lys	Val	Leu	Leu	Val	Leu
	595						600					605			
Pro	Lys	Thr	Thr	Leu	Ile	Ile	Met	Arg	Tyr	Leu	Phe	Ala	Phe	Leu	Asn
	610						615					620			
His	Leu	Ser	Gln	Phe	Ser	Glu	Glu	Asn	Met	Met	Asp	Pro	Tyr	Asn	Leu
625					630					635					640
Ala	Ile	Cys	Phe	Gly	Pro	Ser	Leu	Met	Ser	Val	Pro	Glu	Gly	His	Asp
				645					650					655	
Gln	Val	Ser	Cys	Gln	Ala	His	Val	Asn	Glu	Leu	Ile	Lys	Thr	Ile	Ile
			660					665						670	
Ile	Gln	His	Glu	Asn	Ile	Phe	Pro	Ser	Pro	Arg	Glu	Leu	Glu	Gly	Pro
	675						680						685		
Val	Tyr	Ser	Arg	Gly	Gly	Ser	Met	Glu	Asp	Tyr	Cys	Asp	Ser	Pro	His
	690						695				700				
Gly	Glu	Thr	Thr	Ser	Val	Glu	Asp	Ser	Thr	Gln	Asp	Val	Thr	Ala	Glu
705					710					715					720
His	His	Thr	Ser	Asp	Glu	Cys	Glu	Pro	Ile	Glu	Ala	Ile	Ala	Lys	
				725				730					735		
Phe	Asp	Tyr	Val	Gly	Arg	Thr	Ala	Arg	Glu	Leu	Ser	Phe	Lys	Lys	Gly
			740					745					750		
Ala	Ser	Leu	Leu	Leu	Tyr	Gln	Arg	Ala	Ser	Asp	Asp	Trp	Trp	Glu	Gly
	755						760					765			
Arg	His	Asn	Gly	Ile	Asp	Gly	Leu	Ile	Pro	His	Gln	Tyr	Ile	Val	Val
	770						775					780			
Gln	Asp	Thr	Glu	Asp	Gly	Val	Val	Glu	Arg	Ser	Ser	Pro	Lys	Ser	Glu
785					790					795					800
Ile	Glu	Val	Ile	Ser	Glu	Pro	Pro	Glu	Glu	Lys	Val	Thr	Ala	Arg	Ala
				805						810				815	
Gly	Ala	Ser	Cys	Pro	Ser	Gly	Gly	His	Val	Ala	Asp	Ile	Tyr	Leu	Ala
			820					825					830		
Asn	Ile	Asn	Lys	Gln	Arg	Lys	Arg	Pro	Glu	Ser	Gly	Ser	Ile	Arg	Lys
	835						840					845			
Thr	Phe	Arg	Ser	Asp	Ser	His	Gly	Leu	Ser	Ser	Ser	Leu	Thr	Asp	Ser
	850					855					860				
Ser	Ser	Pro	Gly	Val	Gly	Ala	Ser	Cys	Arg	Pro	Ser	Ser	Gln	Pro	Ile
865					870					875					880
Met	Ser	Gln	Ser	Leu	Pro	Lys	Glu	Gly	Pro	Asp	Lys	Cys	Ser	Ile	Ser
				885					890					895	
Gly	His	Gly	Ser	Leu	Asn	Ser	Ile	Ser	Arg	His	Ser	Ser	Leu	Lys	Asn
			900					905					910		
Arg	Leu	Asp	Ser	Pro	Gln	Ile	Arg	Lys	Thr	Ala	Thr	Ala	Gly	Arg	Ser
	915						920					925			
Lys	Ser	Phe	Asn	Asn	His	Arg	Pro	Met	Asp	Pro	Glu	Val	Ile	Ala	Gln
	930					935						940			
Asp	Ile	Glu	Ala	Thr	Met	Asn	Ser	Ala	Leu	Asn	Glu	Leu	Arg	Glu	Leu
945					950					955					960
Glu	Arg	Gln	Ser	Ser	Val	Lys	His	Thr	Pro	Asp	Val	Val	Leu	Asp	Thr
				965					970					975	
Leu	Glu	Pro	Leu	Lys	Thr	Ser	Pro	Val	Val	Ala	Pro	Thr	Ser	Glu	Pro
			980					985					990		
Ser	Ser	Pro	Leu	His	Thr	Gln	Leu	Lys	Asp	Pro	Glu	Pro	Ala	Phe	
	995						1000					1005			
Gln	Arg	Ser	Ala	Ser	Thr	Ala	Gly	Asp	Ile	Ala	Cys	Ala	Phe	Arg	Pro
	1010						1015					1020			

Val Lys Ser Val Lys Met Ala Ala Pro Val Lys Pro Pro Ala Thr Arg  
 1025 1030 1035 1040  
 Pro Lys Pro Thr Val Phe Pro Lys Thr Asn Ala Thr Ser Pro Gly Val  
 1045 1050 1055  
 Asn Ser Ser Thr Ser Pro Gln Ser Thr Asp Lys Ser Cys Thr Val  
 1060 1065 10701071

<210> 1566  
 <211> 855  
 <212> PRT  
 <213> Homo sapiens

<400> 1566  
 Met Ala Ser Glu Gly Pro Arg Glu Pro Glu Ser Glu Gly Ile Lys Leu  
 1 5 10 15  
 Ser Ala Asp Val Lys Pro Phe Val Pro Arg Phe Ala Gly Leu Asn Val  
 20 25 30  
 Ala Trp Leu Glu Ser Ser Glu Ala Cys Val Phe Pro Ser Ser Ala Ala  
 35 40 45  
 Thr Tyr Tyr Pro Phe Val Gln Glu Pro Pro Val Thr Glu Gln Lys Ile  
 50 55 60  
 Tyr Thr Glu Asp Met Ala Phe Gly Ala Ser Thr Phe Pro Pro Gln Tyr  
 65 70 75 80  
 Leu Ser Ser Glu Ile Thr Leu His Pro Tyr Ala Tyr Ser Pro Tyr Thr  
 85 90 95  
 Leu Asp Ser Thr Gln Asn Val Tyr Ser Val Pro Gly Ser Gln Tyr Leu  
 100 105 110  
 Tyr Asn Gln Pro Ser Cys Tyr Arg Gly Phe Gln Thr Val Lys His Arg  
 115 120 125  
 Asn Glu Asn Thr Cys Pro Leu Pro Gln Glu Met Lys Ala Leu Phe Lys  
 130 135 140  
 Lys Lys Thr Tyr Asp Glu Lys Lys Thr Tyr Asp Gln Gln Lys Phe Asp  
 145 150 155 160  
 Ser Glu Arg Ala Asp Gly Thr Ile Ser Ser Glu Ile Lys Ser Ala Arg  
 165 170 175  
 Gly Ser His His Leu Ser Ile Tyr Ala Glu Asn Ser Leu Lys Ser Asp  
 180 185 190  
 Gly Tyr His Lys Arg Thr Asp Arg Lys Ser Arg Ile Ile Ala Lys Asn  
 195 200 205  
 Val Ser Thr Ser Lys Pro Glu Phe Glu Phe Thr Thr Leu Asp Phe Pro  
 210 215 220  
 Glu Leu Gln Gly Ala Glu Asn Asn Met Ser Glu Ile Gln Lys Gln Pro  
 225 230 235 240  
 Lys Trp Gly Pro Val His Ser Val Ser Thr Asp Ile Ser Leu Leu Arg  
 245 250 255  
 Glu Val Val Lys Pro Ala Ala Val Leu Ser Lys Gly Glu Ile Val Val  
 260 265 270  
 Lys Asn Asn Pro Asn Glu Ser Val Thr Ala Asn Ala Ala Thr Asn Ser  
 275 280 285  
 Pro Ser Cys Thr Arg Glu Leu Ser Trp Thr Pro Met Gly Tyr Val Val  
 290 295 300  
 Arg Gln Thr Leu Ser Thr Glu Leu Ser Ala Ala Pro Lys Asn Val Thr  
 305 310 315 320  
 Ser Met Ile Asn Leu Lys Thr Ile Ala Ser Ser Ala Asp Pro Lys Asn  
 325 330 335  
 Val Ser Ile Pro Ser Ser Glu Ala Leu Ser Ser Asp Pro Ser Tyr Asn  
 340 345 350  
 Lys Glu Lys His Ile Ile His Pro Thr Gln Lys Ser Lys Ala Ser Gln  
 355 360 365  
 Gly Ser Asp Leu Glu Gln Asn Glu Ala Ser Arg Lys Asn Lys Lys Lys  
 370 375 380

Lys Lys Lys Ser Thr Ser Lys Tyr Glu Val Leu Thr Val Gln Glu Pro  
 385 390 395 400  
 Pro Arg Ile Glu Asp Ala Glu Glu Phe Pro Asn Leu Ala Val Ala Ser  
 405 410 415  
 Glu Arg Arg Asp Arg Ile Glu Thr Pro Lys Phe Gln Ser Lys Gln Gln  
 420 425 430  
 Pro Gln Asp Asn Phe Lys Asn Asn Val Lys Lys Ser Gln Leu Pro Val  
 435 440 445  
 Gln Leu Asp Leu Gly Gly Met Leu Thr Ala Leu Glu Lys Lys Gln His  
 450 455 460  
 Ser Gln His Ala Lys Gln Ser Ser Lys Pro Val Val Val Ser Val Gly  
 465 470 475 480  
 Ala Val Pro Val Leu Ser Lys Glu Cys Ala Ser Gly Glu Arg Gly Arg  
 485 490 495  
 Arg Met Ser Gln Met Lys Thr Pro His Asn Pro Leu Asp Ser Ser Ala  
 500 505 510  
 Pro Leu Met Lys Lys Gly Lys Gln Arg Glu Ile Pro Lys Ala Lys Lys  
 515 520 525  
 Pro Thr Ser Leu Lys Lys Ile Ile Leu Lys Glu Arg Gln Glu Arg Lys  
 530 535 540  
 Gln Arg Leu Gln Glu Asn Ala Val Ser Pro Ala Phe Thr Ser Asp Asp  
 545 550 555 560  
 Thr Gln Asp Gly Glu Ser Gly Gly Asp Asp Gln Phe Pro Glu Gln Ala  
 565 570 575  
 Glu Leu Ser Gly Pro Glu Gly Met Asp Glu Leu Ile Ser Thr Pro Ser  
 580 585 590  
 Val Glu Asp Lys Ser Glu Glu Pro Pro Gly Thr Glu Leu Gln Arg Asp  
 595 600 605  
 Thr Glu Ala Ser His Leu Ala Pro Asn His Thr Thr Phe Pro Lys Ile  
 610 615 620  
 His Ser Arg Arg Phe Arg Asp Tyr Cys Ser Gln Met Leu Ser Lys Glu  
 625 630 635 640  
 Val Asp Ala Cys Val Thr Asp Leu Leu Lys Glu Leu Val Arg Phe Gln  
 645 650 655  
 Asp Arg Met Tyr Gln Lys Asp Pro Val Lys Ala Lys Thr Lys Arg Arg  
 660 665 670  
 Leu Val Leu Gly Leu Arg Glu Val Leu Lys His Leu Lys Leu Lys Lys  
 675 680 685  
 Leu Lys Cys Val Ile Ile Ser Pro Asn Cys Glu Lys Ile Gln Ser Lys  
 690 695 700  
 Gly Gly Leu Asp Asp Thr Leu His Thr Ile Ile Asp Tyr Ala Cys Glu  
 705 710 715 720  
 Gln Asn Ile Pro Phe Val Phe Ala Leu Asn Arg Lys Ala Leu Gly Arg  
 725 730 735  
 Ser Leu Asn Lys Ala Val Pro Val Ser Val Val Gly Ile Phe Ser Tyr  
 740 745 750  
 Asp Gly Ala Gln Asp Gln Phe His Lys Met Val Glu Leu Thr Val Ala  
 755 760 765  
 Ala Arg Gln Ala Tyr Lys Thr Met Leu Glu Asn Val Gln Gln Glu Leu  
 770 775 780  
 Val Gly Glu Pro Arg Pro Gln Ala Pro Pro Ser Leu Pro Thr Gln Gly  
 785 790 795 800  
 Pro Ser Cys Pro Ala Glu Asp Gly Pro Pro Ala Leu Lys Glu Lys Glu  
 805 810 815  
 Glu Pro His Tyr Ile Glu Ile Trp Lys Lys His Leu Glu Ala Tyr Ser  
 820 825 830  
 Gly Cys Thr Leu Glu Leu Glu Glu Ser Leu Glu Ala Ser Thr Ser Gln  
 835 840 845  
 Met Met Asn Leu Asn Leu \*  
 850 854

<211> 115  
 <212> PRT  
 <213> Homo sapiens

<400> 1567  
 Met Lys Val Tyr Ile Tyr Ser Ser Gly Ser Val Glu Ala Gln Lys Leu  
 1 5 10 15  
 Leu Phe Gly His Ser Thr Glu Gly Asp Ile Leu Glu Leu Val Asp Gly  
 20 25 30  
 His Phe Asp Thr Lys Ile Gly His Lys Val Glu Ser Glu Ser Tyr Arg  
 35 40 45  
 Lys Ile Ala Asp Ser Ile Gly Cys Ser Thr Asn Asn Ile Leu Phe Leu  
 50 55 60  
 Thr Asp Val Thr Arg Glu Ala Ser Ala Ala Glu Glu Ala Asp Val His  
 65 70 75 80  
 Val Ala Val Val Val Arg Pro Gly Asn Ala Gly Leu Thr Asp Asp Glu  
 85 90 95  
 Lys Thr Tyr Tyr Ser Leu Ile Thr Ser Phe Ser Glu Leu Tyr Leu Pro  
 100 105 110  
 Ser Ser Thr  
 115

<210> 1568  
 <211> 345  
 <212> PRT  
 <213> Homo sapiens

<400> 1568  
 Met Val Arg Ala Arg His Gln Pro Gly Gly Leu Cys Leu Leu Leu  
 1 5 10 15  
 Leu Leu Cys Gln Phe Met Glu Asp Arg Ser Ala Gln Ala Gly Asn Cys  
 20 25 30  
 Trp Leu Arg Gln Ala Lys Asn Gly Arg Cys Gln Val Leu Tyr Lys Thr  
 35 40 45  
 Glu Leu Ser Lys Glu Glu Cys Cys Ser Thr Gly Arg Leu Ser Thr Ser  
 50 55 60  
 Trp Thr Glu Glu Asp Val Asn Asp Asn Thr Leu Phe Lys Trp Met Ile  
 65 70 75 80  
 Phe Asn Gly Gly Ala Pro Asn Cys Ile Pro Cys Lys Glu Thr Cys Glu  
 85 90 95  
 Asn Val Asp Cys Gly Pro Gly Lys Lys Cys Arg Met Asn Lys Lys Asn  
 100 105 110  
 Lys Pro Arg Cys Val Cys Ala Pro Asp Cys Ser Asn Ile Thr Trp Lys  
 115 120 125  
 Gly Pro Val Cys Gly Leu Asp Gly Lys Thr Tyr Arg Asn Glu Cys Ala  
 130 135 140  
 Leu Leu Lys Ala Arg Cys Lys Glu Gln Pro Glu Leu Glu Val Gln Tyr  
 145 150 155 160  
 Gln Gly Arg Cys Lys Lys Thr Cys Arg Asp Val Phe Cys Pro Gly Ser  
 165 170 175  
 Ser Thr Cys Val Val Asp Gln Thr Asn Asn Ala Tyr Cys Val Thr Cys  
 180 185 190  
 Asn Arg Ile Cys Pro Glu Pro Ala Ser Ser Glu Gln Tyr Leu Cys Gly  
 195 200 205  
 Asn Asp Gly Val Thr Tyr Ser Ser Ala Cys His Leu Arg Lys Ala Thr  
 210 215 220  
 Cys Leu Leu Gly Arg Ser Ile Gly Leu Ala Tyr Glu Gly Lys Cys Ile  
 225 230 235 240  
 Lys Ala Lys Ser Cys Glu Asp Ile Gln Cys Thr Gly Gly Lys Lys Cys  
 245 250 255

Leu Trp Asp Phe Lys Val Gly Arg Gly Arg Cys Ser Leu Cys Asp Glu  
                   260                                  265                                  270  
 Leu Cys Pro Asp Ser Lys Ser Asp Glu Pro Val Cys Ala Ser Asp Asn  
                   275                                  280                                  285  
 Ala Thr Tyr Ala Ser Glu Cys Ala Met Lys Glu Ala Ala Cys Ser Ser  
                   290                                  295                                  300  
 Gly Val Leu Leu Glu Val Lys His Ser Gly Ser Cys Asn Ser Ile Ser  
 305                                  310                                  315                                  320  
 Glu Asp Thr Glu Glu Glu Glu Asp Glu Asp Gln Asp Tyr Ser Phe  
                                   325                                  330                                  335  
 Pro Ile Ser Ser Ile Leu Glu Trp \*  
                                   340                                  344

<210> 1569  
 <211> 650  
 <212> PRT  
 <213> Homo sapiens

<400> 1569  
 Met Ile Ser Ala Ala Trp Ser Ile Phe Leu Ile Gly Thr Lys Ile Gly  
   1                                  5                                  10                                  15  
 Leu Phe Leu Gln Val Ala Pro Leu Ser Val Met Ala Lys Ser Cys Pro  
                   20                                  25                                  30  
 Ser Val Cys Arg Cys Asp Ala Gly Phe Ile Tyr Cys Asn Asp Arg Phe  
                   35                                  40                                  45  
 Leu Thr Ser Ile Pro Thr Gly Ile Pro Glu Asp Ala Thr Thr Leu Tyr  
                   50                                  55                                  60  
 Leu Gln Asn Asn Gln Ile Asn Asn Ala Gly Ile Pro Ser Asp Leu Lys  
 65                                  70                                  75                                  80  
 Asn Leu Leu Lys Val Glu Arg Ile Tyr Leu Tyr His Asn Ser Leu Asp  
                                   85                                  90                                  95  
 Glu Phe Pro Thr Asn Leu Pro Lys Tyr Val Lys Glu Leu His Leu Gln  
                   100                                  105                                  110  
 Glu Asn Asn Ile Arg Thr Ile Thr Tyr Asp Ser Leu Ser Lys Ile Pro  
                   115                                  120                                  125  
 Tyr Leu Glu Glu Leu His Leu Asp Asp Asn Ser Val Ser Ala Val Ser  
                   130                                  135                                  140  
 Ile Glu Glu Gly Ala Phe Arg Asp Ser Asn Tyr Leu Arg Leu Leu Phe  
 145                                  150                                  155                                  160  
 Leu Ser Arg Asn His Leu Ser Thr Ile Pro Trp Gly Leu Pro Arg Thr  
                   165                                  170                                  175  
 Ile Glu Glu Leu Arg Leu Asp Asp Asn Arg Ile Ser Thr Ile Ser Ser  
                   180                                  185                                  190  
 Pro Ser Leu Gln Gly Leu Thr Ser Leu Lys Arg Leu Val Leu Asp Gly  
                   195                                  200                                  205  
 Asn Leu Leu Asn Asn His Gly Leu Gly Asp Lys Val Phe Phe Asn Leu  
                   210                                  215                                  220  
 Val Asn Leu Thr Glu Leu Ser Leu Val Arg Asn Ser Leu Thr Ala Ala  
 225                                  230                                  235                                  240  
 Pro Val Asn Leu Pro Gly Thr Asn Leu Arg Lys Leu Tyr Leu Gln Asp  
                   245                                  250                                  255  
 Asn His Ile Asn Arg Val Pro Pro Asn Ala Phe Ser Tyr Leu Arg Gln  
                   260                                  265                                  270  
 Leu Tyr Arg Leu Asp Met Ser Asn Asn Asn Leu Ser Asn Leu Pro Gln  
                   275                                  280                                  285  
 Gly Ile Phe Asp Asp Leu Asp Asn Ile Thr Gln Leu Ile Leu Arg Asn  
                   290                                  295                                  300  
 Asn Pro Trp Tyr Cys Gly Cys Lys Met Lys Trp Val Arg Asp Trp Leu  
 305                                  310                                  315                                  320  
 Gln Ser Leu Pro Val Lys Val Asn Val Arg Gly Leu Met Cys Gln Ala  
                                   325                                  330                                  335

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Pro Glu Lys Val Arg Gly Met Ala Ile Lys Asp Leu Asn Ala Glu Leu
      340      345      350
Phe Asp Cys Lys Asp Ser Gly Ile Val Ser Thr Ile Gln Ile Thr Thr
      355      360      365
Ala Ile Pro Asn Thr Val Tyr Pro Ala Gln Gly Gln Trp Pro Ala Pro
      370      375      380
Val Thr Lys Gln Pro Asp Ile Lys Asn Pro Lys Leu Thr Lys Asp His
      385      390      395      400
Gln Thr Thr Gly Ser Pro Ser Arg Lys Thr Ile Thr Ile Thr Val Lys
      405      410      415
Ser Val Thr Ser Asp Thr Ile His Ile Ser Trp Lys Leu Ala Leu Pro
      420      425      430
Met Thr Ala Leu Arg Leu Ser Trp Leu Lys Leu Gly His Ser Pro Ala
      435      440      445
Phe Gly Ser Ile Thr Glu Thr Ile Val Thr Gly Glu Arg Ser Glu Tyr
      450      455      460
Leu Val Thr Ala Leu Glu Pro Asp Ser Pro Tyr Lys Val Cys Met Val
      465      470      475      480
Pro Met Glu Thr Ser Asn Leu Tyr Leu Phe Asp Glu Thr Pro Val Cys
      485      490      495
Ile Glu Thr Glu Thr Ala Pro Leu Arg Met Tyr Asn Pro Thr Thr Thr
      500      505      510
Leu Asn Arg Glu Gln Glu Lys Glu Pro Tyr Lys Asn Pro Asn Leu Pro
      515      520      525
Leu Ala Ala Ile Ile Gly Gly Ala Val Ala Leu Val Thr Ile Ala Leu
      530      535      540
Leu Ala Leu Val Cys Trp Tyr Val His Arg Asn Gly Ser Leu Phe Ser
      545      550      555      560
Arg Asn Cys Ala Tyr Ser Lys Gly Arg Arg Arg Lys Asp Asp Tyr Ala
      565      570      575
Glu Ala Gly Thr Lys Lys Asp Asn Ser Ile Leu Glu Ile Arg Glu Thr
      580      585      590
Ser Phe Gln Met Leu Pro Ile Ser Asn Glu Pro Ile Ser Lys Glu Glu
      595      600      605
Phe Val Ile His Thr Ile Phe Pro Pro Asn Gly Met Asn Leu Tyr Lys
      610      615      620
Asn Asn His Ser Glu Ser Ser Ser Asn Arg Ser Tyr Arg Asp Ser Gly
      625      630      635      640
Ile Pro Asp Ser Asp His Ser His Ser *
      645      649

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&lt;210&gt; 1570

&lt;211&gt; 1540

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1570

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Met Thr Thr Asp Ala Pro Lys Lys Ile Val Ala Ala Lys Tyr Glu Val
  1      5      10      15
Ile His Ser Lys Thr Lys Val Asn Val Lys Ser Val Lys Arg Asn Thr
      20      25      30
Asp Val Pro Glu Ser Gln Gln Asn Leu His Arg Pro Val Lys Val Arg
      35      40      45
Lys Lys Gln Ile Asp Lys Glu Pro Lys Ile Gln Ser Cys Asn Ser Gly
      50      55      60
Val Lys Ser Val Lys Asn Gln Ala His Ser Val Leu Lys Lys Thr Leu
      65      70      75      80
Gln Asp Gln Thr Leu Val Gln Ile Phe Lys Pro Leu Thr His Ser Leu
      85      90      95
Ser Asp Lys Ser His Ala His Pro Gly Cys Leu Lys Glu Pro His His
      100      105      110

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Pro Ala Gln Thr Gly His Val Ser His Ser Ser Gln Lys Gln Cys His
115 120 125
Lys Pro Gln Gln Gln Ala Pro Ala Met Lys Thr Asn Ser His Val Lys
130 135 140
Glu Glu Leu Glu His Pro Gly Val Glu His Phe Lys Glu Glu Asp Lys
145 150 155 160
Leu Lys Leu Lys Lys Pro Glu Lys Asn Leu Gln Pro Arg Gln Arg Arg
165 170 175
Ser Ser Lys Ser Phe Ser Leu Asp Glu Pro Pro Leu Phe Ile Pro Asp
180 185 190
Asn Ile Ala Thr Ile Arg Arg Glu Gly Ser Asp His Ser Ser Ser Phe
195 200 205
Glu Ser Lys Tyr Met Trp Thr Pro Ser Lys Gln Cys Gly Phe Cys Lys
210 215 220
Lys Pro His Gly Asn Arg Phe Met Val Gly Cys Gly Arg Cys Asp Asp
225 230 235 240
Trp Phe His Gly Asp Cys Val Gly Leu Ser Leu Ser Gln Ala Gln Gln
245 250 255
Met Gly Glu Glu Asp Lys Glu Tyr Val Cys Val Lys Cys Cys Ala Glu
260 265 270
Glu Asp Lys Lys Thr Glu Ile Leu Asp Pro Asp Thr Leu Glu Asn Gln
275 280 285
Ala Thr Val Glu Phe His Ser Gly Asp Lys Thr Met Glu Cys Glu Lys
290 295 300
Leu Gly Leu Ser Lys His Thr Thr Asn Asp Arg Thr Lys Tyr Ile Asp
305 310 315 320
Asp Thr Val Lys His Lys Val Lys Ile Leu Lys Arg Glu Ser Gly Glu
325 330 335
Gly Arg Asn Ser Ser Asp Cys Arg Asp Asn Glu Ile Lys Lys Trp Gln
340 345 350
Leu Ala Pro Leu Arg Lys Met Gly Gln Pro Val Leu Pro Arg Arg Ser
355 360 365
Ser Glu Glu Lys Ser Glu Lys Ile Pro Lys Glu Ser Thr Thr Val Thr
370 375 380
Cys Thr Gly Glu Lys Ala Ser Lys Pro Gly Thr His Glu Lys Gln Glu
385 390 395 400
Met Lys Lys Lys Lys Val Glu Lys Gly Val Leu Asn Val His Pro Ala
405 410 415
Ala Ser Ala Ser Lys Pro Ser Ala Asp Gln Ile Arg Gln Ser Val Arg
420 425 430
His Ser Leu Lys Asp Ile Leu Met Lys Arg Leu Thr Asp Ser Asn Leu
435 440 445
Lys Val Pro Glu Glu Lys Ala Ala Lys Val Ala Thr Lys Ile Glu Lys
450 455 460
Glu Leu Phe Ser Phe Phe Arg Asp Thr Asp Ala Lys Tyr Lys Asn Lys
465 470 475 480
Tyr Arg Ser Leu Met Phe Asn Leu Lys Asp Pro Lys Asn Asn Ile Leu
485 490 495
Phe Lys Lys Val Leu Lys Gly Glu Val Thr Pro Asp His Leu Ile Arg
500 505 510
Met Ser Pro Glu Glu Leu Ala Ser Lys Glu Leu Ala Ala Trp Arg Arg
515 520 525
Arg Glu Asn Arg His Thr Ile Glu Met Ile Glu Lys Glu Gln Arg Glu
530 535 540
Val Glu Arg Arg Pro Ile Thr Lys Ile Thr His Lys Gly Glu Ile Glu
545 550 555 560
Ile Glu Ser Asp Ala Pro Met Lys Glu Gln Glu Ala Ala Met Glu Ile
565 570 575
Gln Glu Pro Ala Ala Asn Lys Ser Leu Glu Lys Pro Glu Gly Ser Glu
580 585 590
Lys Gln Lys Glu Glu Val Asp Ser Met Ser Lys Asp Thr Thr Ser Gln
595 600 605
His Arg Gln His Leu Phe Asp Leu Asn Cys Lys Ile Cys Ile Gly Arg
610 615 620

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Met Ala Pro Pro Val Asp Asp Leu Ser Pro Lys Lys Val Lys Val Val  
 625 630 635 640  
 Val Gly Val Ala Arg Lys His Ser Asp Asn Glu Ala Glu Ser Ile Ala  
 645 650 655  
 Asp Ala Leu Ser Ser Thr Ser Asn Ile Leu Ala Ser Glu Phe Phe Glu  
 660 665 670  
 Glu Glu Lys Gln Glu Ser Pro Lys Ser Thr Phe Ser Pro Ala Pro Arg  
 675 680 685  
 Pro Glu Met Pro Gly Thr Val Glu Val Glu Ser Thr Phe Leu Ala Arg  
 690 695 700  
 Leu Asn Phe Ile Trp Lys Gly Phe Ile Asn Met Pro Ser Val Ala Lys  
 705 710 715 720  
 Phe Val Thr Lys Ala Tyr Pro Val Ser Gly Ser Pro Glu Tyr Leu Thr  
 725 730 735  
 Glu Asp Leu Pro Asp Ser Ile Gln Val Gly Gly Arg Ile Ser Pro Gln  
 740 745 750  
 Thr Val Trp Asp Tyr Val Glu Lys Ile Lys Ala Ser Gly Thr Lys Glu  
 755 760 765  
 Ile Cys Val Val Arg Phe Thr Pro Val Thr Glu Glu Asp Gln Ile Ser  
 770 775 780  
 Tyr Thr Leu Leu Phe Ala Tyr Phe Ser Ser Arg Lys Arg Tyr Gly Val  
 785 790 795 800  
 Ala Ala Asn Asn Met Lys Gln Val Lys Asp Met Tyr Leu Ile Pro Leu  
 805 810 815  
 Gly Ala Thr Asp Lys Ile Pro His Pro Leu Val Pro Phe Asp Gly Pro  
 820 825 830  
 Gly Leu Glu Leu His Arg Pro Asn Leu Leu Leu Gly Leu Ile Ile Arg  
 835 840 845  
 Gln Lys Leu Lys Arg Gln His Ser Ala Cys Ala Ser Thr Ser His Ile  
 850 855 860  
 Ala Glu Thr Pro Glu Ser Ala Pro Pro Ile Ala Leu Pro Pro Asp Lys  
 865 870 875 880  
 Lys Ser Lys Ile Glu Val Ser Thr Glu Glu Ala Pro Glu Glu Glu Asn  
 885 890 895  
 Asp Phe Phe Asn Ser Phe Thr Thr Val Leu His Lys Gln Arg Asn Lys  
 900 905 910  
 Pro Gln Gln Asn Leu Gln Glu Asp Leu Pro Thr Ala Val Glu Pro Leu  
 915 920 925  
 Met Glu Val Thr Lys Gln Glu Pro Pro Lys Pro Leu Arg Phe Leu Pro  
 930 935 940  
 Gly Val Leu Ile Gly Trp Glu Asn Gln Pro Thr Thr Leu Glu Leu Ala  
 945 950 955 960  
 Asn Lys Pro Leu Pro Val Asp Asp Ile Leu Gln Ser Leu Leu Gly Thr  
 965 970 975  
 Thr Gly Gln Val Tyr Asp Gln Ala Gln Ser Val Met Glu Gln Asn Thr  
 980 985 990  
 Val Lys Glu Ile Pro Phe Leu Asn Glu Gln Thr Asn Ser Lys Ile Glu  
 995 1000 1005  
 Lys Thr Asp Asn Val Glu Val Thr Asp Gly Glu Asn Lys Glu Ile Lys  
 1010 1015 1020  
 Val Lys Val Asp Asn Ile Ser Glu Ser Thr Asp Lys Ser Ala Glu Ile  
 1025 1030 1035 1040  
 Glu Thr Ser Val Val Gly Ser Ser Ser Ile Ser Ala Gly Ser Leu Thr  
 1045 1050 1055  
 Ser Leu Ser Leu Arg Gly Lys Pro Pro Asp Val Ser Thr Glu Ala Phe  
 1060 1065 1070  
 Leu Thr Asn Leu Ser Ile Gln Ser Lys Gln Glu Glu Thr Val Glu Ser  
 1075 1080 1085  
 Lys Glu Lys Thr Leu Lys Arg Gln Leu Gln Glu Asp Gln Glu Asn Asn  
 1090 1095 1100  
 Leu Gln Asp Asn Gln Thr Ser Asn Ser Ser Pro Cys Arg Ser Asn Val  
 1105 1110 1115 1120  
 Gly Lys Gly Asn Ile Asp Gly Asn Val Ser Cys Ser Glu Asn Leu Val  
 1125 1130 1135

Ala Asn Thr Ala Arg Ser Pro Gln Phe Ile Asn Leu Lys Arg Asp Pro  
           1140                                  1145                                  1150  
 Arg Gln Ala Ala Gly Arg Ser Gln Pro Val Thr Thr Ser Glu Ser Lys  
           1155                                  1160                                  1165  
 Asp Gly Asp Ser Cys Arg Asn Gly Glu Lys His Met Leu Pro Gly Leu  
           1170                                  1175                                  1180  
 Ser His Asn Lys Glu His Leu Thr Glu Gln Ile Asn Val Glu Glu Lys  
 1185                                  1190                                  1195                                  1200  
 Leu Cys Ser Ala Glu Lys Asn Ser Cys Val Gln Gln Ser Asp Asn Leu  
           1205                                  1210                                  1215  
 Lys Val Ala Gln Asn Ser Pro Ser Val Glu Asn Ile Gln Thr Ser Gln  
           1220                                  1225                                  1230  
 Ala Glu Gln Ala Lys Pro Leu Gln Glu Asp Ile Leu Met Gln Asn Ile  
           1235                                  1240                                  1245  
 Glu Thr Val His Pro Phe Arg Arg Gly Ser Ala Val Ala Thr Ser His  
           1250                                  1255                                  1260  
 Phe Glu Val Gly Asn Thr Cys Pro Ser Glu Phe Pro Ser Lys Ser Ile  
 1265                                  1270                                  1275                                  1280  
 Thr Phe Thr Ser Arg Ser Thr Ser Pro Arg Thr Ser Thr Asn Phe Ser  
           1285                                  1290                                  1295  
 Pro Met Arg Pro Gln Gln Pro Asn Leu Gln His Leu Lys Ser Ser Pro  
           1300                                  1305                                  1310  
 Pro Gly Phe Pro Phe Pro Gly Pro Pro Asn Phe Pro Pro Gln Ser Met  
           1315                                  1320                                  1325  
 Phe Gly Phe Pro Pro His Leu Pro Pro Pro Leu Leu Pro Pro Pro Gly  
           1330                                  1335                                  1340  
 Phe Gly Phe Ala Gln Asn Pro Met Val Pro Trp Pro Pro Val Val His  
 1345                                  1350                                  1355                                  1360  
 Leu Pro Gly Gln Pro Gln Arg Met Met Gly Pro Leu Ser Gln Ala Ser  
           1365                                  1370                                  1375  
 Arg Tyr Ile Gly Pro Gln Asn Phe Tyr Gln Val Lys Asp Ile Arg Arg  
           1380                                  1385                                  1390  
 Pro Glu Arg Arg His Ser Asp Pro Trp Gly Arg Gln Asp Gln Gln  
           1395                                  1400                                  1405  
 Leu Asp Arg Pro Phe Asn Arg Gly Lys Gly Asp Arg Gln Arg Phe Tyr  
           1410                                  1415                                  1420  
 Ser Asp Ser His His Leu Lys Arg Glu Arg His Glu Lys Glu Trp Glu  
 1425                                  1430                                  1435                                  1440  
 Gln Glu Ser Glu Arg His Arg Arg Arg Asp Arg Ser Gln Asp Lys Asp  
           1445                                  1450                                  1455  
 Arg Asp Arg Lys Ser Arg Glu Glu Gly His Lys Asp Lys Glu Arg Ala  
           1460                                  1465                                  1470  
 Arg Leu Ser His Gly Asp Arg Gly Thr Asp Gly Lys Ala Ser Arg Asp  
           1475                                  1480                                  1485  
 Ser Arg Asn Val Asp Lys Lys Pro Asp Lys Pro Lys Ser Glu Asp Tyr  
           1490                                  1495                                  1500  
 Glu Lys Asp Lys Glu Arg Glu Lys Ser Lys His Arg Glu Gly Glu Lys  
 1505                                  1510                                  1515                                  1520  
 Asp Arg Asp Arg Tyr His Lys Asp Arg Asp His Thr Asp Arg Thr Lys  
           1525                                  1530                                  1535  
 Ser Lys Arg \*  
           1539

&lt;210&gt; 1571

&lt;211&gt; 395

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1571

Met Leu Ser Ser Phe Asn Glu Trp Phe Trp Gln Asp Arg Phe Trp Leu  
 1                                  5                                  10                                  15

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Pro Pro Asn Val Thr Trp Thr Glu Leu Glu Asp Arg Asp Gly Arg Val
      20      25      30
Tyr Pro His Pro Gln Asp Leu Leu Ala Ala Leu Pro Leu Ala Leu Val
      35      40      45
Leu Leu Ala Met Arg Leu Ala Phe Glu Arg Phe Ile Gly Leu Pro Leu
      50      55      60
Ser Arg Trp Leu Gly Val Arg Asp Gln Thr Arg Arg Gln Val Lys Pro
      65      70      75      80
Asn Ala Thr Leu Glu Lys His Phe Leu Thr Glu Gly His Arg Pro Lys
      85      90      95
Glu Pro Gln Leu Ser Leu Leu Ala Ala Gln Cys Gly Leu Thr Leu Gln
      100      105      110
Gln Thr Gln Arg Trp Phe Arg Arg Arg Asn Gln Asp Arg Pro Gln
      115      120      125
Leu Thr Lys Lys Phe Cys Glu Ala Ser Trp Arg Phe Leu Phe Tyr Leu
      130      135      140
Ser Ser Phe Val Gly Gly Leu Ser Val Leu Tyr His Glu Ser Trp Leu
      145      150      155      160
Trp Ala Pro Val Met Cys Trp Asp Arg Tyr Pro Asn Gln Thr Leu Lys
      165      170      175
Pro Ser Leu Tyr Trp Trp Tyr Leu Leu Glu Leu Gly Phe Tyr Leu Ser
      180      185      190
Leu Leu Ile Arg Leu Pro Phe Asp Val Lys Arg Lys Asp Phe Lys Glu
      195      200      205
Gln Val Ile His His Phe Val Ala Val Ile Leu Met Thr Phe Ser Tyr
      210      215      220
Ser Ala Asn Leu Leu Arg Ile Gly Ser Leu Val Leu Leu Leu His Asp
      225      230      235      240
Ser Ser Asp Tyr Leu Leu Glu Ala Cys Lys Met Val Asn Tyr Met Gln
      245      250      255
Tyr Gln Gln Val Cys Asp Ala Leu Phe Leu Ile Phe Ser Phe Val Phe
      260      265      270
Phe Tyr Thr Arg Leu Val Leu Phe Pro Thr Gln Ile Leu Tyr Thr Thr
      275      280      285
Tyr Tyr Glu Ser Ile Ser Asn Arg Gly Pro Phe Phe Gly Tyr Tyr Phe
      290      295      300
Phe Asn Gly Leu Leu Met Leu Leu Gln Leu Leu His Val Phe Trp Ser
      305      310      315      320
Cys Leu Ile Leu Arg Met Leu Tyr Ser Phe Met Lys Lys Gly Gln Met
      325      330      335
Glu Lys Asp Ile Arg Ser Asp Val Glu Glu Ser Asp Ser Ser Glu Glu
      340      345      350
Ala Ala Ala Ala Gln Glu Pro Leu Gln Leu Lys Asn Gly Thr Ala Gly
      355      360      365
Gly Pro Arg Pro Ala Pro Thr Asp Gly Pro Arg Ser Arg Val Ala Gly
      370      375      380
Arg Leu Thr Asn Arg His Thr Thr Ala Thr *
      385      390      394

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&lt;210&gt; 1572

&lt;211&gt; 407

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1572

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Met Ala Pro Ala Arg Cys Phe Ser Ala Arg Leu Arg Thr Val Phe Gln
  1      5      10      15
Gly Val Gly His Trp Ala Leu Ser Thr Trp Ala Gly Leu Lys Pro Ser
      20      25      30
Arg Leu Leu Pro Gln Arg Ala Ser Pro Arg Leu Leu Ser Val Gly Arg
      35      40      45

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Ala Asp Leu Ala Lys His Gln Glu Leu Pro Gly Lys Lys Leu Leu Ser  
 50 55 60  
 Glu Lys Lys Leu Lys Arg Tyr Phe Val Asp Tyr Arg Arg Val Leu Val  
 65 70 75 80  
 Cys Gly Gly Asn Gly Gly Ala Gly Ala Ser Cys Phe His Ser Glu Pro  
 85 90 95  
 Arg Lys Glu Phe Gly Gly Pro Asp Gly Gly Asp Gly Gly Asn Gly Gly  
 100 105 110  
 His Val Ile Leu Arg Val Asp Gln Gln Val Lys Ser Leu Ser Ser Val  
 115 120 125  
 Leu Ser Arg Tyr Gln Gly Phe Ser Gly Glu Asp Gly Gly Ser Lys Asn  
 130 135 140  
 Cys Phe Gly Arg Ser Gly Ala Val Leu Tyr Ile Arg Val Pro Val Gly  
 145 150 155 160  
 Thr Leu Val Lys Glu Gly Gly Arg Val Val Ala Asp Leu Ser Cys Val  
 165 170 175  
 Gly Asp Glu Tyr Ile Ala Ala Leu Gly Gly Ala Gly Gly Lys Gly Asn  
 180 185 190  
 Arg Phe Phe Leu Ala Asn Asn Asn Arg Ala Pro Val Thr Cys Thr Pro  
 195 200 205  
 Gly Gln Pro Gly Gln Gln Arg Val Leu His Leu Glu Leu Lys Thr Ala  
 210 215 220  
 Ala His Ala Gly Met Gly Gly Phe Pro Asn Ala Gly Lys Ser Ser Leu  
 225 230 235 240  
 Leu Arg Ala Ile Ser Asn Ala Arg Pro Ala Val Ala Ser Tyr Pro Phe  
 245 250 255  
 Thr Thr Leu Lys Pro His Val Gly Ile Val His Tyr Glu Gly His Leu  
 260 265 270  
 Gln Ile Ala Val Ala Asp Ile Pro Gly Ile Ile Arg Gly Ala His Gln  
 275 280 285  
 Asn Arg Gly Leu Gly Ser Ala Phe Leu Arg His Ile Glu Arg Cys Arg  
 290 295 300  
 Phe Leu Leu Phe Val Val Asp Leu Ser Gln Pro Glu Pro Trp Thr Gln  
 305 310 315 320  
 Val Asp Asp Leu Lys Tyr Glu Leu Glu Met Tyr Glu Lys Gly Leu Ser  
 325 330 335  
 Ala Arg Pro His Ala Ile Val Ala Asn Lys Ile Asp Leu Pro Glu Ala  
 340 345 350  
 Gln Ala Asn Leu Ser Gln Leu Arg Asp His Leu Gly Gln Glu Val Ile  
 355 360 365  
 Val Leu Ser Ala Leu Thr Gly Glu Asn Leu Glu Gln Leu Leu Leu His  
 370 375 380  
 Leu Lys Val Leu Tyr Asp Ala Tyr Ala Glu Ala Glu Leu Gly Gln Gly  
 385 390 395 400  
 Arg Gln Pro Leu Arg Trp \*  
 405 406

&lt;210&gt; 1573

&lt;211&gt; 2474

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1573

Met Leu Gly Leu Leu Val Gln Phe Cys Thr Ser His Lys Glu Met Asp  
 1 5 10 15  
 Val Val Ser Gln His Lys Ser Ala Leu Asp Phe Tyr Met Lys Asn  
 20 25 30  
 Ile Leu Met Ser Lys Val Lys Pro Pro Lys Tyr Leu Leu Asp Ser Cys  
 35 40 45  
 Ala Pro Leu Leu Arg Tyr Leu Ser His Ser Glu Phe Lys Asp Leu Ile  
 50 55 60

Leu	Pro	Thr	Ile	Gln	Lys	Ser	Leu	Leu	Arg	Ser	Pro	Glu	Asn	Val	Ile	65	70	75	80
Glu	Thr	Ile	Ser	Ser	Leu	Leu	Ala	Ser	Val	Thr	Leu	Asp	Leu	Ser	Gln	85	90	95	
Tyr	Ala	Met	Asp	Ile	Val	Lys	Gly	Leu	Ala	Gly	His	Leu	Lys	Ser	Asn	100	105	110	
Ser	Pro	Arg	Leu	Met	Asp	Glu	Ala	Val	Leu	Ala	Leu	Arg	Asn	Leu	Ala	115	120	125	
Arg	Gln	Cys	Ser	Asp	Ser	Ser	Ala	Met	Glu	Ser	Leu	Thr	Lys	His	Leu	130	135	140	
Phe	Ala	Ile	Leu	Gly	Gly	Ser	Glu	Gly	Lys	Leu	Thr	Val	Val	Ala	Gln	145	150	155	160
Lys	Met	Ser	Val	Leu	Ser	Gly	Ile	Gly	Ser	Val	Ser	His	His	Val	Val	165	170	175	
Ser	Gly	Pro	Ser	Ser	Gln	Val	Leu	Asn	Gly	Ile	Val	Ala	Glu	Leu	Phe	180	185	190	
Ile	Pro	Phe	Leu	Gln	Gln	Glu	Val	His	Glu	Gly	Thr	Leu	Val	His	Ala	195	200	205	
Val	Ser	Val	Leu	Ala	Leu	Trp	Cys	Asn	Arg	Phe	Thr	Met	Glu	Val	Pro	210	215	220	
Lys	Lys	Leu	Thr	Glu	Trp	Phe	Lys	Lys	Ala	Phe	Ser	Leu	Lys	Thr	Ser	225	230	235	240
Thr	Ser	Ala	Val	Arg	His	Ala	Tyr	Leu	Gln	Cys	Met	Leu	Ala	Ser	Tyr	245	250	255	
Arg	Gly	Asp	Thr	Leu	Leu	Gln	Ala	Leu	Asp	Leu	Leu	Pro	Leu	Leu	Ile	260	265	270	
Gln	Thr	Val	Glu	Lys	Ala	Ala	Ser	Gln	Ser	Thr	Gln	Val	Pro	Thr	Ile	275	280	285	
Thr	Glu	Gly	Val	Ala	Ala	Ala	Leu	Leu	Leu	Leu	Lys	Leu	Ser	Val	Ala	290	295	300	
Asp	Ser	Gln	Ala	Glu	Ala	Lys	Leu	Ser	Ser	Phe	Trp	Gln	Leu	Ile	Val	305	310	315	320
Asp	Glu	Lys	Lys	Gln	Val	Phe	Thr	Ser	Glu	Lys	Phe	Leu	Val	Met	Ala	325	330	335	
Ser	Glu	Asp	Ala	Leu	Cys	Thr	Val	Leu	His	Leu	Thr	Glu	Arg	Leu	Phe	340	345	350	
Leu	Asp	His	Pro	His	Arg	Leu	Thr	Gly	Asn	Lys	Val	Gln	Gln	Tyr	His	355	360	365	
Arg	Ala	Leu	Val	Ala	Val	Leu	Leu	Ser	Arg	Thr	Trp	His	Val	Arg	Arg	370	375	380	
Gln	Ala	Gln	Gln	Thr	Val	Arg	Lys	Leu	Leu	Ser	Ser	Leu	Gly	Gly	Phe	385	390	395	400
Lys	Leu	Ala	His	Gly	Leu	Leu	Glu	Glu	Leu	Lys	Thr	Val	Leu	Ser	Ser	405	410	415	
His	Lys	Val	Leu	Pro	Leu	Glu	Ala	Leu	Val	Thr	Asp	Ala	Gly	Glu	Val	420	425	430	
Thr	Glu	Ala	Gly	Lys	Ala	Tyr	Val	Pro	Pro	Arg	Val	Leu	Gln	Glu	Ala	435	440	445	
Leu	Cys	Val	Ile	Ser	Gly	Val	Pro	Gly	Leu	Lys	Gly	Asp	Val	Thr	Asp	450	455	460	
Thr	Glu	Gln	Leu	Ala	Gln	Glu	Met	Leu	Ile	Ile	Ser	His	His	Pro	Ser	465	470	475	480
Leu	Val	Ala	Val	Gln	Ser	Gly	Leu	Trp	Pro	Ala	Leu	Leu	Ala	Arg	Met	485	490	495	
Lys	Ile	Asp	Pro	Glu	Ala	Phe	Ile	Thr	Arg	His	Leu	Asp	Gln	Ile	Ile	500	505	510	
Pro	Arg	Met	Thr	Thr	Gln	Ser	Pro	Leu	Asn	Gln	Ser	Ser	Met	Asn	Ala	515	520	525	
Met	Gly	Ser	Leu	Ser	Val	Leu	Ser	Pro	Asp	Arg	Val	Leu	Pro	Gln	Leu	530	535	540	
Ile	Ser	Thr	Ile	Thr	Ser	Ser	Val	Gln	Asn	Pro	Ala	Leu	Arg	Leu	Val	545	550	555	560
Thr	Arg	Glu	Glu	Phe	Ala	Ile	Met	Gln	Thr	Pro	Ala	Gly	Glu	Leu	Tyr	565	570	575	

Asp	Lys	Ser	Ile	Ile	Gln	Ser	Ala	Gln	Gln	Asp	Ser	Ile	Lys	Lys	Ala
			580					585					590		
Asn	Met	Lys	Arg	Glu	Asn	Lys	Ala	Tyr	Ser	Phe	Lys	Glu	Gln	Ile	Ile
		595					600					605			
Glu	Leu	Glu	Leu	Lys	Glu	Glu	Ile	Lys	Lys	Lys	Lys	Gly	Ile	Lys	Glu
	610						615					620			
Glu	Val	Gln	Leu	Thr	Ser	Lys	Gln	Lys	Glu	Met	Leu	Gln	Ala	Gln	Leu
	625				630					635					640
Asp	Arg	Glu	Ala	Gln	Val	Arg	Arg	Arg	Leu	Gln	Glu	Leu	Asp	Gly	Glu
				645					650					655	
Leu	Glu	Ala	Ala	Leu	Gly	Leu	Leu	Asp	Ile	Ile	Leu	Ala	Lys	Lys	Ser
		660						665					670		
Thr	Gly	Leu	Thr	Gln	Tyr	Ile	Pro	Val	Leu	Val	Asp	Ser	Phe	Leu	Pro
	675						680						685		
Leu	Leu	Lys	Ser	Pro	Leu	Ala	Ala	Pro	Arg	Ile	Lys	Asn	Pro	Phe	Leu
	690					695						700			
Ser	Leu	Ala	Ala	Cys	Val	Met	Pro	Ser	Arg	Leu	Lys	Ala	Leu	Gly	Thr
	705				710					715				720	
Leu	Val	Ser	His	Val	Thr	Leu	Arg	Leu	Leu	Lys	Pro	Glu	Cys	Val	Leu
			725							730				735	
Asp	Lys	Ser	Trp	Cys	Gln	Glu	Glu	Leu	Ser	Val	Ala	Val	Lys	Arg	Ala
			740					745					750		
Val	Met	Leu	Leu	His	Thr	His	Thr	Ile	Thr	Ser	Arg	Val	Gly	Lys	Gly
	755						760						765		
Glu	Pro	Gly	Ala	Ala	Pro	Leu	Ser	Ala	Pro	Ala	Phe	Ser	Leu	Val	Phe
	770					775					780				
Pro	Phe	Leu	Lys	Met	Val	Leu	Thr	Glu	Met	Pro	His	His	Ser	Glu	Glu
	785				790					795					800
Glu	Glu	Glu	Trp	Met	Ala	Gln	Ile	Leu	Gln	Ile	Leu	Thr	Val	Gln	Ala
			805						810					815	
Gln	Leu	Arg	Ala	Ser	Pro	Asn	Thr	Pro	Pro	Gly	Arg	Val	Asp	Glu	Asn
			820					825					830		
Gly	Pro	Glu	Leu	Leu	Pro	Arg	Val	Ala	Met	Leu	Arg	Leu	Leu	Thr	Trp
		835					840					845			
Val	Ile	Gly	Thr	Gly	Ser	Pro	Arg	Leu	Gln	Val	Leu	Ala	Ser	Asp	Thr
	850					855					860				
Leu	Thr	Thr	Leu	Cys	Ala	Ser	Ser	Ser	Gly	Asp	Asp	Gly	Cys	Ala	Phe
	865				870					875				880	
Ala	Glu	Gln	Glu	Glu	Val	Asp	Val	Leu	Leu	Cys	Ala	Leu	Gln	Ser	Pro
			885						890					895	
Cys	Ala	Ser	Val	Arg	Glu	Thr	Val	Leu	Arg	Gly	Leu	Met	Glu	Leu	His
		900						905					910		
Met	Val	Leu	Pro	Ala	Pro	Asp	Thr	Asp	Glu	Lys	Asn	Gly	Leu	Asn	Leu
		915					920					925			
Leu	Arg	Arg	Leu	Trp	Val	Val	Lys	Phe	Asp	Lys	Glu	Glu	Glu	Ile	Arg
	930					935						940			
Lys	Leu	Ala	Glu	Arg	Leu	Trp	Ser	Met	Met	Gly	Leu	Asp	Leu	Gln	Pro
	945					950				955				960	
Asp	Leu	Cys	Ser	Leu	Leu	Ile	Asp	Asp	Val	Ile	Tyr	His	Glu	Ala	Ala
			965						970					975	
Val	Arg	Gln	Ala	Gly	Ala	Glu	Ala	Leu	Ser	Gln	Ala	Val	Ala	Arg	Tyr
		980						985					990		
Gln	Arg	Gln	Ala	Ala	Glu	Val	Met	Gly	Arg	Leu	Met	Glu	Ile	Tyr	Gln
		995					1000					1005			
Glu	Lys	Leu	Tyr	Arg	Pro	Pro	Pro	Val	Leu	Asp	Ala	Leu	Gly	Arg	Val
	1010					1015					1020				
Ile	Ser	Glu	Ser	Pro	Pro	Asp	Gln	Trp	Glu	Ala	Arg	Cys	Gly	Leu	Ala
	1025					1030				1035				1040	
Leu	Ala	Leu	Asn	Lys	Leu	Ser	Gln	Tyr	Leu	Asp	Ser	Ser	Gln	Val	Lys
			1045						1050				1055		
Pro	Leu	Phe	Gln	Phe	Phe	Val	Pro	Asp	Ala	Leu	Asn	Asp	Arg	His	Pro
		1060						1065					1070		
Asp	Val	Arg	Lys	Cys	Met	Leu	Asp	Ala	Ala	Leu	Ala	Thr	Leu	Asn	Thr
		1075					1080						1085		

His Gly Lys Glu Asn Val Asn Ser Leu Leu Pro Val Phe Glu Glu Phe  
 1090 1095 1100  
 Leu Lys Asn Ala Pro Asn Asp Ala Ser Tyr Asp Ala Val Arg Gln Ser  
 1105 1110 1115 1120  
 Val Val Val Leu Met Gly Ser Leu Ala Lys His Leu Asp Lys Ser Asp  
 1125 1130 1135  
 Pro Lys Val Lys Pro Ile Val Ala Lys Leu Ile Ala Ala Leu Ser Thr  
 1140 1145 1150  
 Pro Ser Gln Gln Val Gln Glu Ser Val Ala Ser Cys Leu Pro Pro Leu  
 1155 1160 1165  
 Val Pro Ala Ile Lys Glu Asp Ala Gly Gly Met Ile Gln Arg Leu Met  
 1170 1175 1180  
 Gln Gln Leu Leu Glu Ser Asp Lys Tyr Ala Glu Arg Lys Gly Ala Ala  
 1185 1190 1195 1200  
 Tyr Gly Leu Ala Gly Leu Val Lys Gly Leu Gly Ile Leu Ser Leu Lys  
 1205 1210 1215  
 Gln Gln Glu Met Met Ala Ala Leu Thr Asp Ala Ile Gln Asp Lys Lys  
 1220 1225 1230  
 Asn Phe Arg Arg Arg Glu Gly Ala Leu Phe Ala Phe Glu Met Leu Cys  
 1235 1240 1245  
 Thr Met Leu Gly Lys Leu Phe Glu Pro Tyr Val Val His Val Leu Pro  
 1250 1255 1260  
 His Leu Leu Leu Cys Phe Gly Asp Gly Asn Gln Tyr Val Arg Glu Ala  
 1265 1270 1275 1280  
 Ala Asp Asp Cys Ala Lys Ala Val Met Ser Asn Leu Ser Ala His Gly  
 1285 1290 1295  
 Val Lys Leu Val Leu Pro Ser Leu Leu Ala Ala Leu Glu Glu Glu Ser  
 1300 1305 1310  
 Trp Arg Thr Lys Ala Gly Ser Val Glu Leu Leu Gly Ala Met Ala Tyr  
 1315 1320 1325  
 Cys Ala Pro Lys Gln Leu Ser Ser Cys Leu Pro Asn Ile Val Pro Lys  
 1330 1335 1340  
 Leu Thr Glu Val Leu Thr Asp Ser His Val Lys Val Gln Lys Ala Gly  
 1345 1350 1355 1360  
 Gln Gln Ala Leu Arg Gln Ile Gly Ser Val Ile Arg Asn Pro Glu Ile  
 1365 1370 1375  
 Leu Ala Ile Ala Pro Val Leu Leu Asp Ala Leu Thr Asp Pro Ser Arg  
 1380 1385 1390  
 Lys Thr Gln Lys Cys Leu Gln Thr Leu Leu Asp Thr Lys Phe Val His  
 1395 1400 1405  
 Phe Ile Asp Ala Pro Ser Leu Ala Leu Ile Met Pro Ile Val Gln Arg  
 1410 1415 1420  
 Ala Phe Gln Asp Arg Ser Thr Asp Thr Arg Lys Met Ala Ala Gln Ile  
 1425 1430 1435 1440  
 Ile Gly Asn Met Tyr Ser Leu Thr Asp Gln Lys Asp Leu Ala Pro Tyr  
 1445 1450 1455  
 Leu Pro Ser Val Thr Pro Gly Leu Lys Ala Ser Leu Leu Asp Pro Val  
 1460 1465 1470  
 Pro Glu Val Arg Thr Val Ser Ala Lys Ala Leu Gly Ala Met Val Lys  
 1475 1480 1485  
 Gly Met Gly Glu Ser Cys Phe Glu Asp Leu Leu Pro Trp Leu Met Glu  
 1490 1495 1500  
 Thr Leu Thr Tyr Glu Gln Ser Ser Val Asp Arg Ser Gly Ala Ala Gln  
 1505 1510 1515 1520  
 Gly Leu Ala Glu Val Met Ala Gly Leu Gly Val Glu Lys Leu Glu Lys  
 1525 1530 1535  
 Leu Met Pro Glu Ile Val Ala Thr Ala Ser Lys Val Asp Ile Ala Pro  
 1540 1545 1550  
 His Val Arg Asp Gly Tyr Ile Met Met Phe Asn Tyr Leu Pro Ile Thr  
 1555 1560 1565  
 Phe Gly Asp Lys Phe Thr Pro Tyr Val Gly Pro Ile Ile Pro Cys Ile  
 1570 1575 1580  
 Leu Lys Ala Leu Ala Asp Glu Asn Glu Phe Val Arg Asp Thr Ala Leu  
 1585 1590 1595 1600

Arg Ala Gly Gln Arg Val Ile Ser Met Tyr Ala Glu Thr Ala Ile Ala  
 1605 1610 1615  
 Leu Leu Leu Pro Gln Leu Glu Gln Gly Leu Phe Asp Asp Leu Trp Arg  
 1620 1625 1630  
 Ile Arg Phe Ser Ser Val Gln Leu Leu Gly Asp Leu Leu Phe His Ile  
 1635 1640 1645  
 Ser Gly Val Thr Gly Lys Met Thr Thr Glu Thr Ala Ser Glu Asp Asp  
 1650 1655 1660  
 Asn Phe Gly Thr Ala Gln Ser Asn Lys Ala Ile Ile Thr Ala Leu Gly  
 1665 1670 1675 1680  
 Val Glu Arg Arg Asn Arg Val Leu Ala Gly Leu Tyr Met Gly Arg Ser  
 1685 1690 1695  
 Asp Thr Gln Leu Val Val Arg Gln Ala Ser Leu His Val Trp Lys Ile  
 1700 1705 1710  
 Val Val Ser Asn Thr Pro Arg Thr Leu Arg Glu Ile Leu Pro Thr Leu  
 1715 1720 1725  
 Phe Gly Leu Leu Leu Gly Phe Leu Ala Ser Thr Cys Ala Asp Lys Arg  
 1730 1735 1740  
 Thr Ile Ala Ala Arg Thr Leu Gly Asp Leu Val Arg Lys Leu Gly Glu  
 1745 1750 1755 1760  
 Lys Ile Leu Pro Glu Ile Ile Pro Ile Leu Glu Glu Gly Leu Arg Ser  
 1765 1770 1775  
 Gln Lys Ser Asp Glu Arg Gln Gly Val Cys Ile Gly Leu Ser Glu Ile  
 1780 1785 1790  
 Met Lys Ser Thr Ser Arg Asp Ala Val Leu Tyr Phe Ser Glu Ser Leu  
 1795 1800 1805  
 Val Pro Thr Ala Arg Lys Ala Leu Cys Asp Pro Leu Glu Glu Val Arg  
 1810 1815 1820  
 Glu Ala Ala Ala Lys Thr Phe Glu Gln Leu His Ser Thr Ile Gly His  
 1825 1830 1835 1840  
 Gln Ala Leu Glu Asp Ile Leu Pro Phe Leu Leu Lys Gln Leu Asp Asp  
 1845 1850 1855  
 Glu Glu Val Ser Glu Phe Ala Leu Asp Gly Leu Lys Gln Val Met Ala  
 1860 1865 1870  
 Ile Lys Ser Arg Val Val Leu Pro Tyr Leu Val Pro Lys Leu Thr Thr  
 1875 1880 1885  
 Pro Pro Val Asn Thr Arg Val Leu Ala Phe Leu Ser Ser Val Ala Gly  
 1890 1895 1900  
 Asp Ala Leu Thr Arg His Leu Gly Val Ile Leu Pro Ala Val Met Leu  
 1905 1910 1915 1920  
 Ala Leu Lys Glu Lys Leu Gly Thr Pro Asp Glu Gln Leu Glu Met Ala  
 1925 1930 1935  
 Asn Cys Gln Ala Val Ile Leu Ser Val Glu Asp Asp Thr Gly His Arg  
 1940 1945 1950  
 Ile Ile Ile Glu Asp Leu Leu Glu Ala Thr Arg Ser Pro Glu Val Gly  
 1955 1960 1965  
 Met Arg Gln Ala Ala Ala Ile Ile Leu Asn Ile Tyr Cys Ser Arg Ser  
 1970 1975 1980  
 Lys Ala Asp Tyr Thr Ser His Leu Arg Ser Leu Val Ser Gly Leu Ile  
 1985 1990 1995 2000  
 Arg Leu Phe Asn Asp Ser Ser Pro Val Val Leu Glu Glu Ser Trp Asp  
 2005 2010 2015  
 Ala Leu Asn Ala Ile Thr Lys Lys Leu Asp Ala Gly Asn Gln Leu Ala  
 2020 2025 2030  
 Leu Ile Glu Glu Leu His Lys Glu Ile Arg Leu Ile Gly Asn Glu Ser  
 2035 2040 2045  
 Lys Gly Glu His Val Pro Gly Phe Cys Leu Pro Lys Lys Gly Val Thr  
 2050 2055 2060  
 Ser Ile Leu Pro Val Leu Arg Glu Gly Val Leu Thr Gly Ser Pro Glu  
 2065 2070 2075 2080  
 Gln Lys Glu Glu Ala Ala Lys Ala Leu Gly Leu Val Ile Arg Leu Thr  
 2085 2090 2095  
 Ser Ala Asp Ala Leu Arg Pro Ser Val Val Ser Ile Thr Gly Pro Leu  
 2100 2105 2110



Ile Arg Ile Leu Gly Asp Arg Phe Ser Trp Asn Val Lys Ala Ala Leu  
           2115  2120  2125  
 Leu Glu Thr Leu Ser Leu Leu Leu Ala Lys Val Gly Ile Ala Leu Lys  
           2130  2135  2140  
 Pro Phe Leu Pro Gln Leu Gln Thr Thr Phe Thr Lys Ala Leu Gln Asp  
 2145  2150  2155  2160  
 Ser Asn Arg Gly Val Arg Leu Lys Ala Ala Asp Ala Leu Gly Lys Leu  
   2165  2170  2175  
 Ile Ser Ile His Ile Lys Val Asp Pro Leu Phe Thr Glu Leu Leu Asn  
   2180  2185  2190  
 Gly Ile Arg Ala Met Glu Asp Pro Gly Val Arg Asp Thr Met Leu Gln  
           2195  2200  2205  
 Ala Leu Arg Phe Val Ile Gln Gly Ala Gly Ala Lys Val Asp Ala Val  
           2210  2215  2220  
 Ile Arg Lys Asn Ile Val Ser Leu Leu Leu Ser Met Leu Gly His Asp  
 2225  2230  2235  2240  
 Glu Asp Asn Thr Arg Ile Ser Ser Ala Gly Cys Leu Gly Glu Leu Cys  
   2245  2250  2255  
 Ala Phe Leu Thr Glu Glu Glu Leu Ser Ala Val Leu Gln Gln Cys Leu  
   2260  2265  2270  
 Leu Ala Asp Val Ser Gly Ile Asp Trp Met Val Arg His Gly Arg Ser  
           2275  2280  2285  
 Leu Ala Leu Ser Val Ala Val Asn Val Ala Pro Gly Arg Leu Cys Ala  
           2290  2295  2300  
 Gly Arg Tyr Ser Ser Asp Val Gln Glu Met Ile Leu Ser Ser Ala Thr  
 2305  2310  2315  2320  
 Ala Asp Arg Ile Pro Ile Ala Val Ser Gly Val Arg Gly Met Gly Phe  
   2325  2330  2335  
 Leu Met Arg His His Ile Glu Thr Gly Gly Gly Gln Leu Pro Ala Lys  
   2340  2345  2350  
 Leu Ser Ser Leu Phe Val Lys Cys Leu Gln Asn Pro Ser Ser Asp Ile  
           2355  2360  2365  
 Arg Leu Val Ala Glu Lys Met Ile Trp Trp Ala Asn Lys Asp Pro Leu  
           2370  2375  2380  
 Pro Pro Leu Asp Pro Gln Ala Ile Lys Pro Ile Leu Lys Ala Leu Leu  
 2385  2390  2395  2400  
 Asp Asn Thr Lys Asp Lys Asn Thr Val Val Arg Ala Tyr Ser Asp Gln  
   2405  2410  2415  
 Ala Ile Val Asn Leu Leu Lys Met Arg Gln Gly Glu Glu Val Phe Gln  
           2420  2425  2430  
 Ser Leu Ser Lys Ile Leu Asp Val Ala Ser Leu Glu Val Leu Asn Glu  
           2435  2440  2445  
 Val Asn Arg Arg Ser Leu Lys Lys Leu Ala Ser Gln Ala Asp Ser Thr  
           2450  2455  2460  
 Glu Gln Val Asp Asp Thr Ile Leu Thr \*  
 2465  2470  2473

&lt;210&gt; 1574

&lt;211&gt; 356

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1574

Met Glu Gly Ile Pro Gly Phe Pro Gly Asn Arg Gly Leu Met Gly Gln  
   1  5  10  15  
 Lys Gly Glu Ile Gly Pro Pro Gly Gln Gly Lys Lys Gly Ala Pro  
           20  25  30  
 Gly Met Pro Gly Leu Met Gly Ser Asn Gly Ser Pro Gly Gln Pro Gly  
           35  40  45  
 Thr Pro Gly Ser Lys Gly Ser Lys Gly Glu Pro Gly Ile Gln Gly Met  
           50  55  60

Pro Gly Ala Ser Gly Leu Lys Gly Glu Pro Gly Ala Thr Gly Ser Pro  
 65 70 75 80  
 Gly Glu Pro Gly Tyr Met Gly Leu Pro Gly Ile Gln Gly Lys Lys Gly  
 85 90 95  
 Asp Lys Gly Asn Gln Gly Glu Lys Gly Ile Gln Gly Gln Lys Gly Glu  
 100 105 110  
 Asn Gly Arg Gln Gly Ile Pro Gly Gln Gln Gly Ile Gln Gly His His  
 115 120 125  
 Gly Ala Lys Gly Glu Arg Gly Glu Lys Gly Glu Pro Gly Val Arg Gly  
 130 135 140  
 Ala Ile Gly Ser Lys Gly Glu Ser Gly Val Asp Gly Leu Met Gly Pro  
 145 150 155 160  
 Ala Gly Pro Lys Gly Gln Pro Gly Asp Pro Gly Pro Gln Gly Pro Pro  
 165 170 175  
 Gly Leu Asp Gly Lys Pro Gly Arg Glu Phe Ser Glu Gln Phe Ile Arg  
 180 185 190  
 Gln Val Cys Thr Asp Val Ile Arg Ala Gln Leu Pro Val Leu Leu Gln  
 195 200 205  
 Ser Gly Arg Ile Arg Asn Cys Asp His Cys Leu Ser Gln His Gly Ser  
 210 215 220  
 Pro Gly Ile Pro Gly Pro Pro Gly Pro Ile Gly Pro Glu Gly Pro Arg  
 225 230 235 240  
 Gly Leu Pro Gly Leu Pro Gly Arg Asp Gly Val Pro Gly Leu Val Gly  
 245 250 255  
 Val Pro Gly Arg Pro Gly Val Arg Gly Leu Lys Gly Leu Pro Gly Arg  
 260 265 270  
 Asn Gly Glu Lys Gly Ser Gln Gly Phe Gly Tyr Pro Gly Glu Gln Gly  
 275 280 285  
 Pro Pro Gly Pro Pro Gly Pro Glu Gly Pro Pro Gly Ile Ser Lys Glu  
 290 295 300  
 Gly Pro Pro Gly Asp Pro Gly Leu Pro Gly Lys Asp Gly Asp His Gly  
 305 310 315 320  
 Lys Pro Gly Ile Gln Gly Gln Pro Gly Pro Pro Gly Ile Cys Asp Pro  
 325 330 335  
 Ser Leu Cys Phe Ser Val Ile Ala Arg Arg Asp Pro Phe Arg Lys Gly  
 340 345 350  
 Pro Asn Tyr \*  
 355

<210> 1575  
 <211> 147  
 <212> PRT  
 <213> Homo sapiens

<400> 1575  
 Met Lys Ala Ser Val Val Leu Ser Leu Leu Gly Tyr Leu Val Val Pro  
 1 5 10 15  
 Ser Gly Ala Tyr Ile Leu Gly Arg Cys Thr Val Ala Lys Lys Leu His  
 20 25 30  
 Asp Gly Gly Leu Asp Tyr Phe Glu Gly Tyr Ser Leu Glu Asn Trp Val  
 35 40 45  
 Cys Leu Ala Tyr Phe Glu Ser Lys Phe Asn Pro Met Ala Ile Tyr Glu  
 50 55 60  
 Asn Thr Arg Glu Gly Tyr Thr Gly Phe Gly Leu Phe Gln Met Arg Gly  
 65 70 75 80  
 Ser Asp Trp Cys Gly Asp His Gly Arg Asn Arg Cys His Met Ser Cys  
 85 90 95  
 Ser Ala Leu Leu Asn Pro Asn Leu Glu Lys Thr Ile Lys Cys Ala Lys  
 100 105 110  
 Thr Ile Val Lys Gly Lys Glu Gly Met Gly Ala Trp Pro Thr Trp Ser  
 115 120 125

Arg Tyr Cys Gln Tyr Ser Asp Thr Leu Ala Arg Trp Leu Asp Gly Cys  
 130 135 140  
 Lys Leu \*  
 145 146

<210> 1576  
 <211> 379  
 <212> PRT  
 <213> Homo sapiens

<400> 1576  
 Met Leu Arg Ala Gly Trp Leu Arg Gly Ala Ala Ala Leu Ala Leu Leu  
 1 5 10 15  
 Leu Ala Ala Arg Val Val Ala Ala Phe Glu Pro Ile Thr Val Gly Leu  
 20 25 30  
 Ala Ile Gly Ala Ala Ser Ala Ile Thr Gly Tyr Leu Ser Tyr Asn Asp  
 35 40 45  
 Ile Tyr Cys Arg Phe Ala Glu Cys Cys Arg Glu Glu Arg Pro Leu Asn  
 50 55 60  
 Ala Ser Ala Leu Lys Leu Asp Leu Glu Glu Lys Leu Phe Gly Gln His  
 65 70 75 80  
 Leu Ala Thr Glu Val Ile Phe Lys Ala Leu Thr Gly Phe Arg Asn Asn  
 85 90 95  
 Lys Asn Pro Lys Lys Pro Leu Thr Leu Ser Leu His Gly Trp Ala Gly  
 100 105 110  
 Thr Gly Lys Asn Phe Val Ser Gln Ile Val Ala Glu Asn Leu His Pro  
 115 120 125  
 Lys Gly Leu Lys Ser Asn Phe Val His Leu Phe Val Ser Thr Leu His  
 130 135 140  
 Phe Pro His Glu Gln Lys Ile Lys Leu Tyr Pro Asp Gln Leu Gln Lys  
 145 150 155 160  
 Trp Ile Arg Gly Asn Val Ser Ala Cys Ala Asn Ser Val Phe Ile Phe  
 165 170 175  
 Asp Glu Met Asp Lys Leu His Pro Gly Ile Ile Asp Ala Ile Lys Pro  
 180 185 190  
 Phe Leu Asp Tyr Tyr Glu Gln Val Asp Gly Val Tyr Tyr Arg Lys Ala  
 195 200 205  
 Ile Phe Ile Phe Leu Ser Asn Ala Gly Gly Asp Leu Ile Thr Lys Thr  
 210 215 220  
 Ala Leu Asp Phe Trp Arg Ala Gly Arg Lys Arg Glu Asp Ile Gln Leu  
 225 230 235 240  
 Lys Asp Leu Glu Pro Val Leu Ser Val Gly Val Phe Asn Asn Lys His  
 245 250 255  
 Ser Gly Leu Trp His Ser Gly Leu Ile Asp Lys Asn Leu Ile Asp Tyr  
 260 265 270  
 Phe Ile Pro Phe Leu Pro Leu Glu Tyr Arg His Val Lys Met Cys Val  
 275 280 285  
 Met Ala Glu Met Arg Ala Arg Gly Ser Ala Ile Asp Glu Asp Ile Val  
 290 295 300  
 Thr Arg Val Ala Glu Glu Met Thr Phe Phe Pro Gln Arg Arg Glu Asn  
 305 310 315 320  
 Leu Leu Arg Gln Gly Leu Gln Asp Cys Ala Val Ala Ala Gly Phe Pro  
 325 330 335  
 Leu Ser Ser Tyr Pro Asp Gly Val Gly Asp Ser Trp Glu Ala Pro His  
 340 345 350  
 Ala Arg Gly Leu Ala Phe Gln Lys Asn Pro Glu Asp Arg Phe Gly Val  
 355 360 365  
 Leu Pro Val Cys Thr Leu Asp Phe Trp Val \*  
 370 375 378

<210> 1577  
 <211> 88  
 <212> PRT  
 <213> Homo sapiens

<400> 1577  
 Met Ala Gly Ala Ser Leu Gly Ala Arg Phe Tyr Arg Gln Ile Lys Arg  
 1 5 10 15  
 His Pro Gly Ile Ile Pro Met Ile Gly Leu Ile Cys Leu Gly Met Gly  
 20 25 30  
 Ser Ala Ala Leu Tyr Leu Leu Arg Leu Ala Leu Arg Ser Pro Asp Val  
 35 40 45  
 Cys Trp Asp Arg Lys Asn Asn Pro Glu Pro Trp Asn Arg Leu Ser Pro  
 50 55 60  
 Asn Asp Gln Tyr Lys Phe Leu Ala Val Ser Thr Asp Tyr Lys Lys Leu  
 65 70 75 80  
 Lys Lys Asp Arg Pro Asp Phe \*  
 85 87

<210> 1578  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

<400> 1578  
 Met Arg Arg Leu Leu Leu Val Thr Ser Leu Val Val Val Leu Leu Trp  
 1 5 10 15  
 Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val  
 20 25 30  
 Lys His Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala Trp Gly Ala Arg  
 35 40 45  
 Val Val Glu Pro Pro Glu Lys Asp Asp Gln Leu Val Val Leu Phe Pro  
 50 55 60  
 Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly Thr  
 65 70 75 80  
 Lys Ala Trp Met Glu Thr Glu Asp Thr Leu Gly Arg Val Leu Ser Pro  
 85 90 95  
 Glu Pro Asp His Asp Ser Leu Tyr His Pro Pro Pro Glu Glu Asp Gln  
 100 105 110  
 Gly Glu Glu Arg Pro Arg Leu Trp Val Met Pro Asn His Gln Val Leu  
 115 120 125  
 Leu Gly Pro Glu Glu Asp Gln Asp His Ile Tyr His Pro Gln \*  
 130 135 140 142

<210> 1579  
 <211> 152  
 <212> PRT  
 <213> Homo sapiens

<400> 1579  
 Met Arg Arg Leu Leu Leu Val Thr Ser Leu Val Val Val Leu Leu Trp  
 1 5 10 15  
 Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val  
 20 25 30  
 Lys His Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala Trp Gly Ala Arg  
 35 40 45

Val	Val	Glu	Pro	Pro	Glu	Lys	Asp	Asp	Gln	Leu	Val	Val	Leu	Phe	Pro
50						55					60				
Val	Gln	Lys	Pro	Lys	Leu	Leu	Thr	Thr	Glu	Glu	Lys	Pro	Arg	Gly	Gln
65					70					75					80
Gly	Arg	Gly	Pro	Ile	Leu	Pro	Gly	Thr	Lys	Ala	Trp	Met	Glu	Thr	Glu
				85					90					95	
Asp	Thr	Leu	Gly	Arg	Val	Leu	Ser	Pro	Glu	Pro	Asp	His	Asp	Ser	Leu
			100					105					110		
Tyr	His	Pro	Pro	Pro	Glu	Glu	Asp	Gln	Gly	Glu	Glu	Arg	Pro	Arg	Leu
		115					120					125			
Trp	Val	Met	Pro	Asn	His	Gln	Val	Leu	Leu	Gly	Pro	Glu	Glu	Asp	Gln
		130				135					140				
Asp	His	Ile	Tyr	His	Pro	Gln	*								
145					150	151									

&lt;210&gt; 1580

&lt;211&gt; 529

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1580

Met	Ala	Ala	Val	Leu	Asn	Ala	Glu	Arg	Leu	Glu	Val	Ser	Val	Asp	Gly
1				5					10					15	
Leu	Thr	Leu	Ser	Pro	Asp	Pro	Glu	Glu	Arg	Pro	Gly	Ala	Glu	Gly	Ala
			20					25					30		
Pro	Leu	Leu	Pro	Pro	Pro	Leu	Pro	Pro	Pro	Ser	Pro	Pro	Gly	Ser	Gly
			35				40					45			
Arg	Gly	Pro	Gly	Ala	Ser	Gly	Glu	Gln	Pro	Glu	Pro	Gly	Glu	Ala	Ala
		50				55					60				
Ala	Gly	Gly	Ala	Ala	Glu	Glu	Ala	Arg	Arg	Leu	Glu	Gln	Arg	Trp	Gly
		65			70					75				80	
Phe	Gly	Leu	Glu	Glu	Leu	Tyr	Gly	Leu	Ala	Leu	Arg	Phe	Phe	Lys	Glu
				85				90						95	
Lys	Asp	Gly	Lys	Ala	Phe	His	Pro	Thr	Tyr	Glu	Glu	Lys	Leu	Lys	Leu
			100					105					110		
Val	Ala	Leu	His	Lys	Gln	Val	Leu	Met	Gly	Pro	Tyr	Asn	Pro	Asp	Thr
			115				120					125			
Cys	Pro	Glu	Val	Gly	Phe	Phe	Asp	Val	Leu	Gly	Asn	Asp	Arg	Arg	Arg
			130			135					140				
Glu	Trp	Ala	Ala	Leu	Gly	Asn	Met	Ser	Lys	Glu	Asp	Ala	Met	Val	Glu
					150					155				160	
Phe	Val	Lys	Leu	Leu	Asn	Arg	Cys	Cys	His	Leu	Phe	Ser	Thr	Tyr	Val
				165					170					175	
Ala	Ser	His	Lys	Ile	Glu	Lys	Glu	Glu	Gln	Asp	Lys	Lys	Arg	Lys	Glu
			180					185					190		
Glu	Glu	Glu	Arg	Arg	His	Arg	Glu	Glu	Glu	Glu	Arg	Glu	Arg	Leu	Gln
			195				200					205			
Lys	Glu	Glu	Glu	Lys	Arg	Arg	Arg	Glu	Glu	Glu	Glu	Arg	Leu	Arg	Arg
			210			215					220				
Glu	Glu	Glu	Glu	Arg	Arg	Arg	Ile	Glu	Glu	Glu	Arg	Leu	Arg	Leu	Glu
					230					235				240	
Gln	Gln	Lys	Gln	Gln	Ile	Met	Ala	Ala	Leu	Asn	Ser	Gln	Thr	Ala	Val
				245					250					255	
Gln	Phe	Gln	Gln	Tyr	Ala	Ala	Gln	Gln	Tyr	Pro	Gly	Asn	Tyr	Glu	Gln
			260					265					270		
Gln	Gln	Ile	Leu	Ile	Arg	Gln	Leu	Gln	Glu	Gln	His	Tyr	Gln	Gln	Tyr
			275				280					285			
Met	Gln	Gln	Leu	Tyr	Gln	Val	Gln	Leu	Ala	Gln	Gln	Gln	Ala	Ala	Leu
			290			295					300				
Gln	Lys	Gln	Gln	Glu	Val	Val	Val	Ala	Gly	Ser	Ser	Leu	Pro	Thr	Ser
					310					315					320

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Ser Lys Val Asn Ala Thr Val Pro Ser Asn Met Met Ser Val Asn Gly
      325      330      335
Gln Ala Lys Thr His Thr Asp Ser Ser Glu Lys Glu Leu Glu Pro Glu
      340      345      350
Ala Ala Glu Glu Ala Leu Glu Asn Gly Pro Lys Glu Ser Leu Pro Val
      355      360      365
Ile Ala Ala Pro Ser Met Trp Thr Arg Pro Gln Ile Lys Asp Phe Lys
      370      375      380
Glu Lys Ile Gln Gln Asp Ala Asp Ser Val Ile Thr Val Gly Arg Gly
      385      390      395      400
Glu Val Val Thr Val Arg Val Pro Thr His Glu Glu Gly Ser Tyr Leu
      405      410      415
Phe Trp Glu Phe Ala Thr Asp Asn Tyr Asp Ile Gly Phe Gly Val Tyr
      420      425      430
Phe Glu Trp Thr Asp Ser Pro Asn Thr Ala Val Ser Val His Val Ser
      435      440      445
Glu Ser Ser Asp Asp Asp Glu Glu Glu Glu Glu Asn Ile Gly Cys Glu
      450      455      460
Glu Lys Ala Lys Lys Asn Ala Asn Lys Pro Leu Leu Asp Glu Ile Val
      465      470      475      480
Pro Val Tyr Arg Arg Asp Cys His Glu Glu Val Tyr Ala Gly Ser His
      485      490      495
Gln Tyr Pro Gly Arg Gly Val Tyr Leu Leu Lys Phe Asp Asn Ser Tyr
      500      505      510
Ser Leu Trp Arg Ser Lys Ser Val Tyr Tyr Arg Val Tyr Tyr Thr Arg
      515      520      525      528

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<210> 1581
<211> 2465
<212> PRT
<213> Homo sapiens

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<400> 1581
Met Glu Glu Leu Glu Lys Asp Pro Arg Ile Ala Gln Lys Ile Lys Arg
  1      5      10      15
Phe Arg Asn Lys Gln Ala Gln Met Lys His Ile Phe Thr Glu Asp Ser
      20      25      30
Val Arg Asp Phe Ala Lys Pro Glu Gly Ser Cys Lys Arg Thr Val Met
      35      40      45
Val Gly Met Gly His Arg Trp Arg Ala Asp Cys Thr Met Pro Asp Glu
      50      55      60
Asp Leu Phe Asn Pro Asp Tyr Val Glu Val Asp Arg Ile Leu Glu Val
      65      70      75      80
Ala His Thr Lys Asp Ala Glu Thr Gly Glu Glu Val Thr His Tyr Leu
      85      90      95
Val Lys Trp Cys Ser Leu Pro Tyr Glu Glu Ser Thr Trp Glu Leu Glu
      100      105      110
Glu Asp Val Asp Pro Ala Lys Val Lys Glu Phe Glu Ser Leu Gln Val
      115      120      125
Leu Pro Glu Ile Lys His Val Glu Arg Pro Ala Ser Asp Ser Trp Gln
      130      135      140
Lys Leu Glu Lys Ser Arg Glu Tyr Lys Asn Ser Asn Gln Leu Arg Glu
      145      150      155      160
Tyr Gln Leu Glu Gly Met Asn Trp Leu Leu Phe Asn Trp Tyr Asn Arg
      165      170      175
Lys Asn Cys Ile Leu Ala Asp Glu Met Gly Leu Gly Lys Thr Ile Gln
      180      185      190
Ser Ile Thr Phe Leu Ser Glu Ile Phe Leu Arg Gly Ile His Gly Pro
      195      200      205

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Phe Leu Ile Ile Ala Pro Leu Ser Thr Ile Thr Asn Trp Glu Arg Glu  
 210 215 220  
 Phe Arg Thr Trp Thr Glu Met Asn Ala Ile Val Tyr His Gly Ser Gln  
 225 230 235 240  
 Ile Ser Arg Gln Met Ile Gln Gln Tyr Glu Met Val Tyr Arg Asp Ala  
 245 250 255  
 Gln Gly Asn Pro Leu Ser Gly Val Phe Lys Phe His Val Val Ile Thr  
 260 265 270  
 Thr Phe Glu Met Ile Leu Ala Asp Cys Pro Glu Leu Lys Lys Ile His  
 275 280 285  
 Trp Ser Cys Val Ile Ile Asp Glu Ala His Arg Leu Lys Asn Arg Asn  
 290 295 300  
 Cys Lys Leu Leu Glu Gly Leu Lys Leu Met Ala Leu Glu His Lys Val  
 305 310 315 320  
 Leu Leu Thr Gly Thr Pro Leu Gln Asn Ser Val Glu Glu Leu Phe Ser  
 325 330 335  
 Leu Leu Asn Phe Leu Glu Pro Ser Gln Phe Pro Ser Glu Thr Ala Phe  
 340 345 350  
 Leu Glu Glu Phe Gly Asp Leu Lys Thr Glu Glu Gln Val Lys Lys Leu  
 355 360 365  
 Gln Ser Ile Leu Lys Pro Met Met Leu Arg Arg Leu Lys Asp Asp Val  
 370 375 380  
 Glu Lys Asn Leu Ala Pro Lys Gln Glu Thr Ile Ile Glu Val Glu Leu  
 385 390 395 400  
 Thr Asn Ile Gln Lys Lys Tyr Tyr Arg Ala Ile Leu Glu Lys Asn Phe  
 405 410 415  
 Ser Phe Leu Thr Lys Gly Ala Asn Gln His Asn Met Pro Asn Leu Ile  
 420 425 430  
 Asn Thr Met Met Glu Leu Arg Lys Cys Cys Asn His Pro Tyr Leu Ile  
 435 440 445  
 Asn Gly Ala Glu Glu Lys Ile Leu Glu Asp Phe Arg Lys Thr His Ser  
 450 455 460  
 Pro Asp Ala Pro Asp Phe Gln Leu Gln Ala Met Ile Gln Ala Ala Gly  
 465 470 475 480  
 Lys Leu Val Leu Ile Asp Lys Leu Leu Pro Lys Leu Ile Ala Gly Gly  
 485 490 495  
 His Lys Val Leu Ile Phe Ser Gln Met Val Arg Cys Leu Asp Ile Leu  
 500 505 510  
 Glu Asp Tyr Leu Ile Gln Arg Arg Tyr Thr Tyr Glu Arg Ile Asp Gly  
 515 520 525  
 Arg Val Arg Gly Asn Leu Arg Gln Ala Ala Ile Asp Arg Phe Cys Lys  
 530 535 540  
 Pro Asp Ser Asp Arg Phe Val Phe Leu Leu Cys Thr Arg Ala Gly Gly  
 545 550 555 560  
 Leu Gly Ile Asn Leu Thr Ala Ala Asp Thr Cys Ile Ile Phe Asp Ser  
 565 570 575  
 Asp Trp Asn Pro Gln Asn Asp Leu Gln Val Pro Glu Gly Arg Ile Gln  
 580 585 590  
 Lys Val Trp Glu Gln Met Ser Trp Pro Arg Ala Gln Pro Gln Asp Asn  
 595 600 605  
 Ala Ala Ala Ala Cys Leu Gln Asp Phe Gly Ser Gln Leu Gly Val Gln  
 610 615 620  
 Ser Glu Glu Thr Gly Pro Phe His Asn Arg Gln Lys Gln Asp Ser Gly  
 625 630 635 640  
 Asn Ser His Thr Ala Pro Arg Gly Arg Val Leu Thr Gly Leu Leu Ser  
 645 650 655  
 Val Trp Ala Ala Leu Val Leu Ser Ile Gly Ile Leu Val Ser Phe Ser  
 660 665 670  
 Ala Met Arg Leu Gly Glu Glu Cys Gly Gln Gly Met Gly Gly Gly Phe  
 675 680 685  
 His Ile Gln Gly Phe Trp His Trp Ala Gln Ala Arg Cys His Arg Ile  
 690 695 700  
 Gly Gln Ser Lys Ala Val Lys Val Tyr Arg Leu Ile Thr Arg Asn Ser  
 705 710 715 720

Tyr Glu Arg Glu Met Phe Asp Lys Ala Ser Leu Lys Leu Gly Leu Asp  
 725 730 735  
 Lys Ala Val Leu Gln Asp Ile Asn Arg Lys Gly Gly Thr Asn Gly Val  
 740 745 750  
 Gln Gln Leu Ser Lys Met Glu Val Glu Asp Leu Leu Arg Lys Gly Ala  
 755 760 765  
 Tyr Gly Ala Leu Met Asp Glu Glu Asp Glu Gly Ser Lys Phe Cys Glu  
 770 775 780  
 Glu Asp Ile Asp Gln Ile Leu Gln Arg Arg Thr His Thr Ile Thr Ile  
 785 790 795 800  
 Gln Ser Glu Gly Lys Gly Ser Thr Phe Ala Lys Ala Ser Phe Val Ala  
 805 810 815  
 Ser Gly Asn Arg Thr Asp Ile Ser Leu Asp Asp Pro Asn Phe Trp Gln  
 820 825 830  
 Lys Trp Ala Lys Ile Ala Glu Leu Asp Thr Glu Ala Lys Asn Glu Lys  
 835 840 845  
 Glu Ser Leu Val Ile Asp Arg Pro Arg Val Arg Lys Gln Thr Lys His  
 850 855 860  
 Tyr Asn Ser Phe Glu Glu Asp Glu Leu Met Glu Phe Ser Glu Leu Asp  
 865 870 875 880  
 Ser Asp Ser Asp Glu Arg Pro Thr Arg Ser Arg Arg Leu Asn Asp Lys  
 885 890 895  
 Ala Arg Arg Tyr Leu Arg Ala Glu Cys Phe Arg Val Glu Lys Asn Leu  
 900 905 910  
 Leu Ile Phe Gly Trp Gly Arg Trp Lys Asp Ile Leu Thr His Gly Arg  
 915 920 925  
 Phe Lys Trp His Leu Asn Glu Lys Asp Met Glu Met Ile Cys Arg Ala  
 930 935 940  
 Leu Leu Val Tyr Cys Val Lys His Tyr Lys Gly Asp Glu Lys Ile Lys  
 945 950 955 960  
 Ser Phe Ile Trp Glu Leu Ile Thr Pro Thr Lys Asp Gly Gln Ala Gln  
 965 970 975  
 Thr Leu Gln Asn His Ser Gly Leu Ser Ala Pro Val Pro Arg Gly Arg  
 980 985 990  
 Lys Gly Lys Lys Thr Lys Asn Gln Leu Leu Ile Pro Glu Leu Lys Asp  
 995 1000 1005  
 Ala Asp Trp Leu Ala Thr Cys Asn Pro Glu Val Val Leu His Asp Asp  
 1010 1015 1020  
 Gly Tyr Lys Lys His Leu Lys Gln His Cys Asn Lys Val Leu Leu Arg  
 1025 1030 1035 1040  
 Val Arg Met Leu Tyr Tyr Leu Lys Ala Glu Ile Leu Gly Glu Ala Ala  
 1045 1050 1055  
 Glu Lys Ala Phe Glu Gly Ser Pro Ala Arg Glu Leu Asp Val Pro Leu  
 1060 1065 1070  
 Pro Asp Ile Asp Tyr Met Glu Ile Pro Val Asp Trp Trp Asp Ala Glu  
 1075 1080 1085  
 Ala Asp Lys Ser Leu Leu Ile Gly Val Phe Lys His Gly Tyr Glu Arg  
 1090 1095 1100  
 Tyr Asn Ala Met Arg Ala Asp Pro Ala Leu Cys Phe Leu Glu Lys Val  
 1105 1110 1115 1120  
 Gly Met Pro Asp Glu Lys Ser Leu Ser Ala Glu Gln Gly Val Thr Asp  
 1125 1130 1135  
 Gly Thr Ser Asp Ile Pro Glu Arg Gly Asn Thr Asp Lys Glu Asp Asn  
 1140 1145 1150  
 Ala Glu Asp Lys Val Asp Gly Leu Gln Lys Gln Thr Glu Ser Ser Ser  
 1155 1160 1165  
 Asp Gly Gly Asp Gly Val Phe Ser Glu Lys Lys Asp Asp Ser Arg Ala  
 1170 1175 1180  
 Ala Arg Leu Arg Arg Leu Val Thr Val Tyr Gln Arg Cys Asn Arg Lys  
 1185 1190 1195 1200  
 Glu Leu Cys Arg Pro Glu Ile Leu Gly Pro Gly Asn Gln Gly Tyr Trp  
 1205 1210 1215  
 Val Gln Glu Glu Met Phe Arg Arg Thr Ser Glu Met Asp Leu Ile Asn  
 1220 1225 1230



Lys Glu Ala Gln Lys Arg Trp Thr Arg Arg Glu Gln Ala Asp Phe Tyr  
 1235 1240 1245  
 Arg Thr Val Ser Ser Phe Gly Val Val Tyr Asp Gln Glu Lys Lys Thr  
 1250 1255 1260  
 Phe Asp Trp Thr Gln Phe Arg Ile Ile Ser Arg Leu Asp Lys Lys Ser  
 1265 1270 1275 1280  
 Asp Glu Ser Leu Glu Gln Tyr Phe Tyr Ser Phe Val Ala Met Cys Arg  
 1285 1290 1295  
 Asn Val Cys Arg Leu Pro Thr Trp Lys Asp Gly Gly Pro Pro Asp Thr  
 1300 1305 1310  
 Thr Ile Tyr Val Glu Pro Ile Thr Glu Glu Arg Ala Ala Arg Thr Leu  
 1315 1320 1325  
 Tyr Arg Ile Glu Leu Leu Arg Lys Val Arg Glu Gln Val Leu Lys Cys  
 1330 1335 1340  
 Pro Gln Leu His Glu Arg Leu Gln Leu Cys Arg Pro Ser Leu Tyr Leu  
 1345 1350 1355 1360  
 Pro Val Trp Trp Glu Cys Gly Lys His Asp Arg Asp Leu Leu Ile Gly  
 1365 1370 1375  
 Thr Ala Lys His Gly Leu Asn Arg Thr Asp Cys Tyr Ile Met Asn Asp  
 1380 1385 1390  
 Pro Gln Leu Ser Phe Leu Asp Ala Tyr Arg Asn Tyr Ala Gln His Lys  
 1395 1400 1405  
 Arg Ser Gly Thr Gln Ala Pro Gly Asn Leu Cys Cys Leu Tyr Gln Thr  
 1410 1415 1420  
 Asn Ser Lys Leu Tyr Glu Ser Leu Thr Tyr Ser Gln Met Ser Arg Thr  
 1425 1430 1435 1440  
 Ser Glu Ser Leu Glu Asn Glu Pro Glu Asn Leu Val Arg Val Glu Ser  
 1445 1450 1455  
 Arg Asp Asp His Leu Ser Leu Pro Asp Val Thr Cys Glu Asn Phe Ile  
 1460 1465 1470  
 Ser Lys Val Gln Asp Val Ile Ser Ile Asn His Asp Glu Ser Leu Leu  
 1475 1480 1485  
 Pro Glu Ser Leu Glu Ser Met Met Tyr Gly Lys Lys Val Leu Ser Gln  
 1490 1495 1500  
 Glu Pro Ser Ser Phe Gln Glu Ser Pro Ser Thr Asn Thr Glu Ser Arg  
 1505 1510 1515 1520  
 Lys Asp Val Ile Thr Ile Ser Ile Ser Lys Asp Gly Asn Cys Gln Ser  
 1525 1530 1535  
 Gly Gly Pro Glu Ala Glu Ile Ala Ser Gly Pro Thr Phe Met Gly Ser  
 1540 1545 1550  
 Leu Glu Ala Gly Gly Val Ala Gln Ala Asn Ile Lys Asn Gly Lys His  
 1555 1560 1565  
 Leu Leu Met Ser Ile Ser Lys Glu Gly Glu Leu Cys Cys Ser Glu Ala  
 1570 1575 1580  
 Gly Gln Arg Pro Glu Asn Ile Gly Gln Leu Glu Ala Lys Cys Leu Ala  
 1585 1590 1595 1600  
 Ser Pro Ser Leu Asn Pro Gly Asn Glu Ser Gly Phe Val Asp Met Cys  
 1605 1610 1615  
 Ser Leu Ser Val Cys Asp Ser Lys Arg Asn Leu Ser Ser Asp Gln Gln  
 1620 1625 1630  
 Leu Ile Asp Leu Leu Glu Asn Lys Ser Leu Glu Ser Lys Leu Ile Leu  
 1635 1640 1645  
 Ser Gln Asn His Ser Asp Glu Glu Glu Glu Glu Glu Asn Glu Glu  
 1650 1655 1660  
 Glu Asn Leu Ala Met Ala Val Gly Met Gly Glu Arg Pro Glu Val Leu  
 1665 1670 1675 1680  
 His Leu Thr Glu Pro Thr Thr Asn Ile Ser Arg Glu Lys Asn Gln Gly  
 1685 1690 1695  
 Phe Gln Asp Glu Thr Lys Lys Gly Ser Leu Glu Val Ala Asn Gln Thr  
 1700 1705 1710  
 Pro Gly Leu Gln Arg Ala Phe Pro Ala Pro Ala Ala Cys Gln Cys His  
 1715 1720 1725  
 Cys Lys His Met Glu Arg Trp Met His Gly Leu Glu Asn Asp Glu Phe  
 1730 1735 1740

Glu Ile Glu Lys Pro Lys Ala Tyr Ile Pro Asp Leu Phe Lys Ser Lys  
 1745 1750 1755 1760  
 Thr Asn Thr Ile Ala Met Glu Gly Glu Pro Thr Ala Ile Pro Ser Gln  
 1765 1770 1775  
 Pro Phe Lys Val Lys His Glu Leu Leu Lys Glu Pro Trp Lys Glu Ser  
 1780 1785 1790  
 Ala Glu Gly Gln Asn Val Phe Pro Thr Tyr Pro Leu Glu Gly Ser Glu  
 1795 1800 1805  
 Leu Lys Ser Glu Asp Met Asp Phe Glu Asn Lys Asp Asp Tyr Asp Arg  
 1810 1815 1820  
 Asp Gly Asn Cys His Ser Gln Asp Tyr Pro Gly Lys Tyr Ser Glu Glu  
 1825 1830 1835 1840  
 Glu Ser Lys Ser Ser Thr Ser Gly Ile Thr Gly Asp Ile Gly Asp Glu  
 1845 1850 1855  
 Leu Gln Glu Ala Arg Ala Pro Thr Ile Ala Gln Leu Leu Gln Glu Lys  
 1860 1865 1870  
 Thr Leu Tyr Ser Phe Ser Glu Trp Pro Lys Asp Arg Val Ile Ile Asn  
 1875 1880 1885  
 Arg Leu Asp Asn Ile Cys His Val Val Leu Lys Gly Lys Trp Pro Ser  
 1890 1895 1900  
 Ser Gln Gln Tyr Glu Pro Ser Gly Thr Leu Pro Thr Pro Val Leu Thr  
 1905 1910 1915 1920  
 Ser Ser Ala Gly Ser Arg Thr Ser Leu Ser Glu Pro Glu Ala Ala Glu  
 1925 1930 1935  
 His Ser Phe Ser Asn Gly Ala Ala Leu Ala Ala Gln Ile His Lys Glu  
 1940 1945 1950  
 Ser Phe Leu Ala Pro Val Phe Thr Lys Asp Glu Gln Lys His Arg Arg  
 1955 1960 1965  
 Pro Tyr Glu Phe Glu Val Glu Arg Asp Ala Lys Ala Arg Gly Leu Glu  
 1970 1975 1980  
 Gln Phe Ser Ala Thr His Gly His Thr Pro Ile Ile Leu Asn Gly Trp  
 1985 1990 1995 2000  
 His Gly Glu Ser Ala Met Asp Leu Ser Cys Ser Ser Glu Gly Ser Pro  
 2005 2010 2015  
 Gly Ala Thr Ser Pro Phe Pro Val Ser Ala Ser Thr Pro Lys Ile Gly  
 2020 2025 2030  
 Ala Ile Ser Ser Leu Gln Gly Ala Leu Gly Met Asp Leu Ser Gly Ile  
 2035 2040 2045  
 Leu Gln Ala Gly Leu Ile His Pro Val Thr Gly Gln Ile Val Asn Gly  
 2050 2055 2060  
 Ser Leu Arg Arg Asp Asp Ala Ala Thr Arg Arg Arg Gly Arg Arg  
 2065 2070 2075 2080  
 Lys His Val Glu Gly Gly Met Asp Leu Ile Phe Leu Lys Glu Gln Thr  
 2085 2090 2095  
 Leu Gln Ala Gly Ile Leu Glu Val His Glu Asp Pro Gly Gln Ala Thr  
 2100 2105 2110  
 Leu Ser Thr Thr His Pro Glu Gly Pro Gly Pro Ala Thr Ser Ala Pro  
 2115 2120 2125  
 Glu Pro Ala Thr Ala Ala Ser Ser Gln Ala Glu Lys Ser Ile Pro Ser  
 2130 2135 2140  
 Lys Ser Leu Leu Asp Trp Leu Arg Gln Gln Ala Asp Tyr Ser Leu Glu  
 2145 2150 2155 2160  
 Val Pro Gly Phe Gly Ala Gly Phe Leu Pro Glu Asn Lys Phe Asn His  
 2165 2170 2175  
 Thr Leu Ala Glu Pro Ile Leu Arg Asp Thr Gly Pro Arg Arg Arg Gly  
 2180 2185 2190  
 Arg Arg Pro Arg Ser Glu Leu Leu Lys Ala Pro Ser Ile Val Ala Asp  
 2195 2200 2205  
 Ser Pro Ser Gly Met Gly Pro Leu Phe Met Asn Gly Leu Ile Ala Gly  
 2210 2215 2220  
 Met Asp Leu Val Gly Leu Gln Asn Met Arg Asn Met Pro Gly Ile Pro  
 2225 2230 2235 2240  
 Leu Thr Gly Leu Val Gly Phe Pro Ala Gly Phe Ala Thr Met Pro Thr  
 2245 2250 2255

Gly Glu Glu Val Lys Ser Thr Leu Ser Met Leu Pro Met Met Leu Pro  
                   2260                  2265                  2270  
 Gly Met Ala Ala Val Pro Gln Met Phe Gly Val Gly Gly Leu Leu Ser  
                   2275                  2280                  2285  
 Pro Pro Met Ala Thr Thr Cys Thr Ser Thr Ala Pro Ala Ser Leu Ser  
                   2290                  2295                  2300  
 Ser Thr Thr Lys Ser Gly Thr Ala Val Thr Glu Lys Thr Ala Glu Asp  
 2305                  2310                  2315                  2320  
 Lys Pro Ser Ser His Asp Val Lys Thr Asp Thr Leu Ala Glu Asp Lys  
                   2325                  2330                  2335  
 Pro Gly Pro Gly Pro Phe Ser Asp Gln Ser Glu Pro Ala Ile Thr Thr  
                   2340                  2345                  2350  
 Ser Ser Pro Val Ala Phe Asn Pro Phe Leu Ile Pro Gly Val Ser Pro  
                   2355                  2360                  2365  
 Gly Leu Ile Tyr Pro Ser Met Phe Leu Ser Pro Gly Met Gly Met Ala  
                   2370                  2375                  2380  
 Leu Pro Ala Met Gln Gln Ala Arg His Ser Glu Ile Val Gly Leu Glu  
 2385                  2390                  2395                  2400  
 Ser Gln Lys Arg Lys Lys Lys Thr Lys Gly Asp Asn Pro Asn Ser  
                   2405                  2410                  2415  
 His Pro Glu Pro Ala Pro Ser Cys Glu Arg Glu Pro Ser Gly Asp Glu  
                   2420                  2425                  2430  
 Asn Cys Ala Glu Pro Ser Ala Pro Leu Pro Ala Glu Arg Glu His Gly  
                   2435                  2440                  2445  
 Ala Gln Ala Gly Glu Gly Ala Leu Lys Asp Ser Asn Asn Asp Thr Asn  
                   2450                  2455                  2460                  2464  
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<210> 1582  
 <211> 61  
 <212> PRT  
 <213> Homo sapiens

<400> 1582  
 Met Asp Lys Lys Leu Glu Glu Gly Cys Phe Asp Lys Ala Tyr Val Val  
   1                  5                  10                  15  
 Leu Gly Gln Phe Leu Val Leu Lys Lys Asp Glu Asp Leu Phe Arg Glu  
                   20                  25                  30  
 Trp Leu Arg Asp Thr Gly Gly Ala Asn Ala Lys Gln Ser Arg Asp Cys  
                   35                  40                  45  
 Phe Gly Cys Leu Arg Glu Trp Cys Asp Ala Phe Leu \*  
                   50                  55                  60

<210> 1583  
 <211> 1275  
 <212> PRT  
 <213> Homo sapiens

<400> 1583  
 Met Ser Leu Asp Phe Gly Ser Val Ala Leu Pro Val Gln Asn Glu Asp  
   1                  5                  10                  15  
 Glu Glu Tyr Asp Glu Glu Asp Tyr Glu Arg Glu Lys Glu Leu Gln Gln  
                   20                  25                  30  
 Leu Leu Thr Asp Leu Pro His Asp Met Leu Asp Asp Asp Leu Ser Ser  
                   35                  40                  45  
 Pro Glu Leu Gln Tyr Ser Asp Cys Ser Glu Asp Gly Thr Asp Gly Gln  
                   50                  55                  60

Pro	His	His	Pro	Glu	Gln	Leu	Glu	Met	Ser	Trp	Asn	Glu	Gln	Met	Leu
65					70					75					80
Pro	Lys	Ser	Gln	Ser	Val	Asn	Gly	Pro	Ser	Cys	Gln	Gly	Leu	Glu	Pro
			85						90					95	
Tyr	Asn	Lys	Val	Thr	Tyr	Lys	Pro	Tyr	Gln	Ser	Ser	Ala	Gln	Asn	Asn
			100					105					110		
Gly	Ser	Pro	Ala	Gln	Glu	Ile	Thr	Gly	Ser	Asp	Thr	Phe	Glu	Gly	Leu
	115					120						125			
Gln	Gln	Gln	Phe	Leu	Gly	Ala	Asn	Glu	Asn	Ser	Ala	Glu	Asn	Met	Gln
	130					135					140				
Ile	Ile	Gln	Leu	Gln	Val	Leu	Asn	Lys	Ala	Lys	Glu	Arg	Gln	Leu	Glu
145					150					155				160	
Asn	Leu	Ile	Glu	Lys	Leu	Asn	Glu	Ser	Glu	Arg	Gln	Ile	Arg	Tyr	Leu
			165					170					175		
Asn	His	Gln	Leu	Val	Ile	Ile	Lys	Asp	Glu	Lys	Asp	Gly	Leu	Thr	Leu
		180						185					190		
Ser	Leu	Arg	Glu	Ser	Gln	Lys	Leu	Phe	Gln	Asn	Gly	Lys	Glu	Arg	Glu
	195					200						205			
Ile	Gln	Leu	Glu	Ala	Gln	Ile	Lys	Ala	Leu	Glu	Thr	Gln	Ile	Gln	Ala
	210					215						220			
Leu	Lys	Val	Asn	Glu	Glu	Gln	Met	Ile	Lys	Lys	Ser	Arg	Thr	Thr	Glu
225					230					235				240	
Met	Ala	Leu	Glu	Ser	Leu	Lys	Gln	Gln	Leu	Val	Asp	Leu	His	His	Ser
			245					250					255		
Glu	Ser	Leu	Gln	Arg	Ala	Arg	Glu	Gln	His	Glu	Ser	Ile	Val	Met	Gly
		260						265					270		
Leu	Thr	Lys	Lys	Tyr	Glu	Glu	Gln	Val	Leu	Ser	Leu	Gln	Lys	Asn	Leu
	275					280						285			
Asp	Ala	Thr	Val	Thr	Ala	Leu	Lys	Glu	Gln	Glu	Asp	Ile	Cys	Ser	Arg
	290				295						300				
Leu	Lys	Asp	His	Val	Lys	Gln	Leu	Glu	Arg	Asn	Gln	Glu	Ala	Ile	Lys
305					310					315				320	
Leu	Glu	Lys	Thr	Glu	Ile	Ile	Asn	Lys	Leu	Thr	Arg	Ser	Leu	Glu	Glu
			325					330					335		
Ser	Gln	Lys	Gln	Cys	Ala	His	Leu	Leu	Gln	Ser	Gly	Ser	Val	Gln	Glu
		340						345					350		
Val	Ala	Gln	Leu	Gln	Phe	Gln	Leu	Gln	Gln	Ala	Gln	Lys	Ala	His	Ala
	355					360						365			
Met	Ser	Ala	Asn	Met	Asn	Lys	Ala	Leu	Gln	Glu	Glu	Leu	Thr	Glu	Leu
	370				375							380			
Lys	Asp	Glu	Ile	Ser	Leu	Tyr	Glu	Ser	Ala	Ala	Lys	Leu	Gly	Ile	His
385					390				395					400	
Pro	Ser	Asp	Ser	Glu	Gly	Glu	Leu	Asn	Ile	Glu	Leu	Thr	Glu	Ser	Tyr
			405					410					415		
Val	Asp	Leu	Gly	Ile	Lys	Lys	Val	Asn	Trp	Lys	Lys	Ser	Lys	Val	Thr
		420						425					430		
Ser	Ile	Val	Gln	Glu	Glu	Asp	Pro	Asn	Glu	Glu	Leu	Ser	Lys	Asp	Glu
	435					440						445			
Phe	Ile	Leu	Lys	Leu	Lys	Ala	Glu	Val	Gln	Arg	Leu	Leu	Gly	Ser	Asn
	450					455					460				
Ser	Met	Lys	Arg	His	Leu	Val	Ser	Gln	Leu	Gln	Asn	Asp	Leu	Lys	Asp
465					470					475				480	
Cys	His	Lys	Lys	Ile	Glu	Asp	Leu	His	Gln	Val	Lys	Lys	Asp	Glu	Lys
			485					490					495		
Ser	Ile	Glu	Val	Glu	Thr	Lys	Thr	Asp	Thr	Ser	Glu	Lys	Pro	Lys	Asn
		500						505					510		
Gln	Leu	Trp	Pro	Glu	Ser	Ser	Thr	Ser	Asp	Val	Val	Arg	Asp	Asp	Ile
	515						520					525			
Leu	Leu	Leu	Lys	Asn	Glu	Ile	Gln	Val	Leu	Gln	Gln	Asn	Gln	Glu	
	530					535					540				
Leu	Lys	Glu	Thr	Glu	Gly	Lys	Leu	Arg	Asn	Thr	Asn	Gln	Asp	Leu	Cys
545					550					555				560	
Asn	Gln	Met	Arg	Gln	Met	Val	Gln	Asp	Phe	Asp	His	Asp	Lys	Gln	Glu
			565					570					575		

Ala Val Asp Arg Cys Glu Arg Thr Tyr Gln Gln His His Glu Ala Met  
 580 585 590  
 Lys Thr Gln Ile Arg Glu Ser Leu Leu Ala Lys His Ala Leu Glu Lys  
 595 600 605  
 Gln Gln Leu Phe Glu Ala Tyr Glu Arg Thr His Leu Gln Leu Arg Ser  
 610 615 620  
 Glu Leu Asp Lys Leu Asn Lys Glu Val Thr Ala Val Gln Glu Cys Tyr  
 625 630 635 640  
 Leu Glu Val Cys Arg Glu Lys Asp Asn Leu Glu Leu Thr Leu Arg Lys  
 645 650 655  
 Thr Thr Glu Lys Glu Gln Gln Thr Gln Glu Lys Ile Lys Glu Lys Leu  
 660 665 670  
 Ile Gln Gln Leu Glu Lys Glu Trp Gln Ser Lys Leu Asp Gln Thr Ile  
 675 680 685  
 Lys Ala Met Lys Lys Lys Thr Leu Asp Cys Gly Ser Gln Thr Asp Gln  
 690 695 700  
 Val Thr Thr Ser Asp Val Ile Ser Lys Lys Glu Met Ala Ile Met Ile  
 705 710 715 720  
 Glu Glu Gln Lys Cys Thr Ile Gln Gln Asn Leu Glu Gln Glu Lys Asp  
 725 730 735  
 Ile Ala Ile Lys Gly Ala Met Lys Lys Leu Glu Ile Glu Leu Glu Leu  
 740 745 750  
 Lys His Cys Glu Asn Ile Thr Lys Gln Val Glu Ile Ala Val Gln Asn  
 755 760 765  
 Ala His Gln Arg Trp Leu Gly Glu Leu Pro Glu Leu Ala Glu Tyr Gln  
 770 775 780  
 Ala Leu Val Lys Ala Glu Gln Lys Lys Trp Glu Glu Gln His Glu Val  
 785 790 795 800  
 Ser Val Asn Lys Arg Ile Ser Phe Ala Val Ser Glu Ala Lys Glu Lys  
 805 810 815  
 Trp Lys Ser Glu Leu Glu Asn Met Arg Lys Asn Ile Leu Pro Gly Lys  
 820 825 830  
 Glu Leu Glu Glu Lys Ile His Ser Leu Gln Lys Glu Leu Glu Leu Lys  
 835 840 845  
 Asn Glu Glu Val Pro Val Val Ile Arg Ala Glu Leu Ala Lys Ala Arg  
 850 855 860  
 Ser Glu Trp Asn Lys Glu Lys Gln Glu Glu Ile His Arg Ile Gln Glu  
 865 870 875 880  
 Gln Asn Glu Gln Asp Tyr Arg Gln Phe Leu Asp Asp His Arg Asn Lys  
 885 890 895  
 Ile Asn Glu Val Leu Ala Ala Ala Lys Glu Asp Phe Met Lys Gln Lys  
 900 905 910  
 Thr Glu Leu Leu Leu Gln Lys Glu Thr Glu Leu Gln Thr Cys Leu Asp  
 915 920 925  
 Gln Ser Arg Arg Glu Trp Thr Met Gln Glu Ala Lys Arg Ile Gln Leu  
 930 935 940  
 Glu Ile Tyr Gln Tyr Glu Glu Asp Ile Leu Thr Val Leu Gly Val Leu  
 945 950 955 960  
 Leu Ser Asp Thr Gln Lys Glu His Ile Ser Asp Ser Glu Asp Lys Gln  
 965 970 975  
 Leu Leu Glu Ile Met Ser Thr Cys Ser Ser Lys Trp Met Ser Val Gln  
 980 985 990  
 Tyr Phe Glu Lys Leu Lys Gly Cys Ile Gln Lys Ala Phe Gln Asp Thr  
 995 1000 1005  
 Leu Pro Leu Leu Val Glu Asn Ala Asp Pro Glu Trp Lys Lys Arg Asn  
 1010 1015 1020  
 Met Ala Glu Leu Ser Lys Asp Ser Ala Ser Gln Gly Thr Gly Gln Gly  
 1025 1030 1035 1040  
 Asp Pro Gly Pro Ala Ala Gly His His Ala Gln Pro Leu Ala Leu Gln  
 1045 1050 1055  
 Ala Thr Glu Ala Glu Ala Asp Lys Lys Val Leu Glu Ile Lys Asp  
 1060 1065 1070  
 Leu Cys Cys Gly His Cys Phe Gln Glu Leu Glu Lys Ala Lys Gln Glu  
 1075 1080 1085

Cys Gln Asp Leu Lys Gly Lys Leu Glu Lys Cys Cys Arg His Leu Gln  
 1090 1095 1100  
 His Leu Glu Arg Lys His Lys Ala Val Val Glu Lys Ile Gly Glu Glu  
 1105 1110 1115 1120  
 Asn Asn Lys Val Val Glu Glu Leu Ile Glu Glu Asn Asn Asp Met Lys  
 1125 1130 1135  
 Asn Lys Leu Glu Glu Leu Gln Thr Leu Cys Lys Thr Pro Pro Arg Ser  
 1140 1145 1150  
 Leu Ser Ala Gly Ala Ile Glu Asn Ala Cys Leu Pro Cys Ser Gly Gly  
 1155 1160 1165  
 Ala Leu Glu Glu Leu Arg Gly Gln Tyr Ile Lys Ala Val Lys Lys Ile  
 1170 1175 1180  
 Lys Cys Asp Met Leu Arg Tyr Ile Gln Glu Ser Lys Glu Arg Ala Ala  
 1185 1190 1195 1200  
 Glu Met Val Lys Ala Glu Val Leu Arg Glu Arg Gln Glu Thr Ala Arg  
 1205 1210 1215  
 Lys Met Arg Lys Tyr Tyr Leu Ile Cys Leu Gln Gln Ile Leu Gln Asp  
 1220 1225 1230  
 Asp Gly Lys Glu Gly Ala Glu Lys Lys Ile Met Asn Ala Ala Ser Lys  
 1235 1240 1245  
 Leu Ala Thr Met Ala Lys Leu Leu Glu Thr Pro Ile Ser Ser Lys Ser  
 1250 1255 1260  
 Gln Ser Lys Thr Thr Gln Ser Gly Met Ser Lys  
 1265 1270 1275

<210> 1584  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

<400> 1584  
 Met Phe Pro Pro Ala Arg Gly Lys Glu Leu Leu Ser Phe Glu Asp Val  
 1 5 10 15  
 Ala Met Tyr Phe Thr Arg Glu Glu Trp Gly His Leu Asn Trp Gly Gln  
 20 25 30  
 Lys Asp Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Arg Asn Met Val  
 35 40 45  
 Leu Leu Gly Phe Gln Phe Pro Lys Pro Glu Met Ile Cys Gln Leu Glu  
 50 55 60  
 Asn Trp Asp Glu Gln Trp Ile Leu Asp Leu Pro Arg Ala Gly Asn Arg  
 65 70 75 80  
 Lys Ala Ser Gly Ser Ala Cys Pro Gly Gly Leu Ser Leu Cys Arg Gln  
 85 90 95  
 Ala Val Leu Ala Ser \*  
 100 101

<210> 1585  
 <211> 488  
 <212> PRT  
 <213> Homo sapiens

<400> 1585  
 Met Arg Arg Gly Glu Arg Arg Asp Ala Gly Gly Pro Arg Pro Glu Ser  
 1 5 10 15  
 Pro Val Pro Ala Gly Arg Ala Ser Leu Glu Glu Pro Pro Asp Gly Pro  
 20 25 30  
 Ser Ala Gly Gln Ala Thr Gly Pro Gly Glu Gly Arg Arg Ser Thr Glu  
 35 40 45

Ser Glu Val Tyr Asp Asp Gly Thr Asn Thr Phe Phe Trp Arg Ala His  
 50 55 60  
 Thr Leu Thr Val Leu Phe Ile Leu Thr Cys Thr Leu Gly Tyr Val Thr  
 65 70 75 80  
 Leu Leu Glu Glu Thr Pro Gln Asp Thr Ala Tyr Asn Thr Lys Arg Gly  
 85 90 95  
 Ile Val Ala Ser Ile Leu Val Phe Leu Cys Phe Gly Val Thr Gln Ala  
 100 105 110  
 Lys Asp Gly Pro Phe Ser Arg Pro His Pro Ala Tyr Trp Arg Phe Trp  
 115 120 125  
 Leu Cys Val Ser Val Val Tyr Glu Leu Phe Leu Ile Phe Ile Leu Phe  
 130 135 140  
 Gln Thr Val Gln Asp Gly Arg Gln Phe Leu Lys Tyr Val Asp Pro Lys  
 145 150 155 160  
 Leu Gly Val Pro Leu Pro Glu Arg Asp Tyr Gly Gly Asn Cys Leu Ile  
 165 170 175  
 Tyr Asp Pro Asp Asn Glu Thr Asp Pro Phe His Asn Ile Trp Asp Lys  
 180 185 190  
 Leu Asp Gly Phe Val Pro Ala His Phe Leu Gly Trp Tyr Leu Lys Thr  
 195 200 205  
 Leu Met Ile Arg Asp Trp Trp Met Cys Met Ile Ile Ser Val Met Phe  
 210 215 220  
 Glu Phe Leu Glu Tyr Ser Leu Glu His Gln Leu Pro Asn Phe Ser Glu  
 225 230 235 240  
 Cys Trp Trp Asp His Trp Ile Met Asp Val Leu Val Cys Asn Gly Leu  
 245 250 255  
 Gly Ile Tyr Cys Gly Met Lys Thr Leu Glu Trp Leu Ser Leu Lys Thr  
 260 265 270  
 Tyr Lys Trp Gln Gly Leu Trp Asn Ile Pro Thr Tyr Lys Gly Lys Met  
 275 280 285  
 Lys Arg Ile Ala Phe Gln Phe Thr Pro Tyr Ser Trp Val Arg Phe Glu  
 290 295 300  
 Trp Lys Pro Ala Ser Ser Leu Arg Arg Trp Leu Ala Val Cys Gly Ile  
 305 310 315 320  
 Ile Leu Val Phe Leu Leu Ala Glu Leu Asn Thr Phe Tyr Leu Lys Phe  
 325 330 335  
 Val Leu Trp Met Pro Pro Glu His Tyr Leu Val Leu Leu Arg Leu Val  
 340 345 350  
 Phe Phe Val Asn Val Gly Gly Val Ala Met Arg Glu Ile Tyr Asp Phe  
 355 360 365  
 Met Asp Asp Pro Lys Pro His Lys Lys Leu Gly Pro Gln Ala Trp Leu  
 370 375 380  
 Val Ala Ala Ile Thr Ala Thr Glu Leu Leu Ile Val Val Lys Tyr Asp  
 385 390 395 400  
 Pro His Thr Leu Thr Leu Ser Leu Pro Phe Tyr Ile Ser Gln Cys Trp  
 405 410 415  
 Thr Leu Gly Ser Val Leu Ala Leu Thr Trp Thr Val Trp Arg Phe Phe  
 420 425 430  
 Leu Arg Asp Ile Thr Leu Arg Tyr Lys Glu Thr Arg Trp Gln Lys Trp  
 435 440 445  
 Gln Asn Lys Asp Asp Gln Gly Ser Thr Val Gly Asn Gly Asp Gln His  
 450 455 460  
 Pro Leu Gly Leu Asp Glu Asp Leu Leu Gly Pro Gly Val Ala Glu Gly  
 465 470 475 480  
 Glu Gly Ala Pro Thr Pro Asn \*  
 485 487

&lt;210&gt; 1586

&lt;211&gt; 682

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1586

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Met Ser Arg Arg Ala Leu Arg Arg Leu Arg Gly Glu Gln Arg Gly Gln
 1      5      10      15
Glu Pro Leu Gly Pro Gly Ala Leu His Phe Asp Leu Arg Asp Asp Asp
 20      25      30
Asp Ala Glu Glu Glu Gly Pro Lys Arg Glu Leu Gly Val Arg Arg Pro
 35      40      45
Gly Gly Ala Gly Lys Glu Gly Val Arg Val Asn Asn Arg Phe Glu Leu
 50      55      60
Ile Asn Ile Asp Asp Leu Glu Asp Asp Pro Val Val Asn Gly Glu Arg
 65      70      75      80
Ser Gly Cys Ala Leu Thr Asp Ala Val Ala Pro Gly Asn Lys Gly Arg
 85      90      95
Gly Gln Arg Gly Asn Thr Glu Ser Lys Thr Asp Gly Asp Asp Thr Glu
100      105      110
Thr Val Pro Ser Glu Gln Ser His Ala Ser Gly Lys Leu Arg Lys Lys
115      120      125
Lys Lys Lys Gln Lys Asn Lys Lys Ser Ser Thr Gly Glu Ala Ser Glu
130      135      140
Asn Gly Leu Glu Asp Ile Asp Arg Ile Leu Glu Arg Ile Glu Asp Ser
145      150      155      160
Thr Gly Leu Asn Arg Pro Gly Pro Ala Pro Leu Ser Ser Arg Lys His
165      170      175
Val Leu Tyr Val Glu His Arg His Leu Asn Pro Asp Thr Glu Leu Lys
180      185      190
Arg Tyr Phe Gly Ala Arg Ala Ile Leu Gly Glu Gln Arg Pro Arg Gln
195      200      205
Arg Gln Arg Val Tyr Pro Lys Cys Thr Trp Leu Thr Thr Pro Lys Ser
210      215      220
Thr Trp Pro Arg Tyr Ser Lys Pro Gly Leu Ser Met Arg Leu Leu Glu
225      230      235      240
Ser Lys Lys Gly Leu Ser Phe Phe Ala Phe Glu His Ser Glu Glu Tyr
245      250      255
Gln Gln Ala Gln His Lys Phe Leu Val Ala Val Glu Ser Met Glu Pro
260      265      270
Asn Asn Ile Val Val Leu Leu Gln Thr Ser Pro Tyr His Val Asp Ser
275      280      285
Leu Leu Gln Leu Ser Asp Ala Cys Arg Phe Gln Glu Asp Gln Glu Met
290      295      300
Ala Arg Asp Leu Val Glu Arg Ala Leu Tyr Ser Met Glu Cys Ala Phe
305      310      315      320
His Pro Leu Phe Ser Leu Thr Ser Gly Ala Cys Arg Leu Asp Tyr Arg
325      330      335
Arg Pro Glu Asn Arg Ser Phe Tyr Leu Ala Leu Tyr Lys Gln Met Ser
340      345      350
Phe Leu Glu Lys Arg Gly Cys Pro Arg Thr Ala Leu Glu Tyr Cys Lys
355      360      365
Leu Ile Leu Ser Leu Glu Pro Asp Glu Asp Pro Leu Cys Met Leu Leu
370      375      380
Leu Ile Asp His Leu Ala Leu Arg Ala Arg Asn Tyr Glu Tyr Leu Ile
385      390      395      400
Arg Leu Phe Gln Glu Trp Glu Val Gly Ala Ser Leu Ala His Arg Asn
405      410      415
Leu Ser Gln Leu Pro Asn Phe Ala Phe Ser Val Pro Leu Ala Tyr Phe
420      425      430
Leu Leu Ser Gln Gln Thr Asp Leu Pro Glu Cys Glu Gln Ser Ser Ala
435      440      445
Arg Gln Lys Ala Ser Leu Leu Ile Gln Gln Ala Leu Thr Met Phe Pro
450      455      460
Gly Val Leu Leu Pro Leu Leu Glu Ser Cys Ser Val Arg Pro Asp Ala
465      470      475      480
Ser Val Ser Ser His Arg Phe Phe Gly Pro Asn Ala Glu Ile Ser Gln
485      490      495

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Pro Pro Ala Leu Ser Gln Leu Val Asn Leu Tyr Leu Gly Arg Ser His
      500                      505                      510
Phe Leu Trp Lys Glu Pro Ala Thr Met Ser Trp Leu Glu Glu Asn Val
      515                      520                      525
His Glu Val Leu Gln Ala Val Asp Ala Gly Asp Pro Ala Val Glu Ala
      530                      535                      540
Cys Glu Asn Arg Arg Lys Val Leu Tyr Gln Arg Ala Pro Arg Asn Ile
      545                      550                      555                      560
His Arg His Val Ile Leu Ser Glu Ile Lys Glu Ala Val Ala Ala Leu
      565                      570                      575
Pro Pro Asp Val Thr Thr Gln Ser Val Met Gly Phe Asp Pro Leu Pro
      580                      585                      590
Pro Ser Asp Thr Ile Tyr Ser Tyr Val Arg Pro Glu Arg Leu Ser Pro
      595                      600                      605
Ile Ser His Gly Asn Thr Ile Ala Leu Phe Phe Arg Ser Leu Leu Pro
      610                      615                      620
Asn Tyr Thr Met Glu Gly Glu Arg Pro Glu Glu Gly Val Ala Gly Gly
      625                      630                      635                      640
Leu Asn Arg Asn Gln Gly Leu Asn Arg Leu Met Leu Ala Val Arg Asp
      645                      650                      655
Met Met Ala Asn Phe His Leu Asn Asp Leu Glu Ala Pro His Glu Asp
      660                      665                      670
Asp Ala Glu Gly Glu Gly Glu Trp Asp *
      675                      680 681

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<210> 1587
<211> 667
<212> PRT
<213> Homo sapiens

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<400> 1587
Met Ser Arg Arg Ala Leu Arg Arg Leu Arg Gly Glu Gln Arg Gly Gln
  1                      5                      10                      15
Glu Pro Leu Gly Pro Gly Ala Leu His Phe Asp Leu Arg Asp Asp Asp
      20                      25                      30
Asp Ala Glu Glu Gly Pro Lys Arg Glu Leu Gly Val Arg Arg Pro
      35                      40                      45
Gly Gly Ala Gly Lys Glu Gly Val Arg Val Asn Asn Arg Phe Glu Leu
      50                      55                      60
Ile Asn Ile Asp Asp Leu Glu Asp Asp Pro Val Val Asn Gly Glu Arg
      65                      70                      75                      80
Ser Gly Cys Ala Leu Thr Asp Ala Val Ala Pro Gly Asn Lys Gly Arg
      85                      90                      95
Gly Gln Arg Gly Asn Thr Glu Ser Lys Thr Asp Gly Asp Asp Thr Glu
      100                      105                      110
Thr Val Pro Ser Glu Gln Ser His Ala Ser Gly Lys Leu Arg Lys Lys
      115                      120                      125
Lys Lys Lys Gln Lys Asn Lys Lys Ser Ser Thr Gly Glu Ala Ser Glu
      130                      135                      140
Asn Gly Leu Glu Asp Ile Asp Arg Ile Leu Glu Arg Ile Glu Asp Ser
      145                      150                      155                      160
Thr Gly Leu Asn Arg Pro Gly Pro Ala Pro Leu Ser Ser Arg Lys His
      165                      170                      175
Val Leu Tyr Val Glu His Arg His Leu Asn Pro Asp Thr Glu Leu Lys
      180                      185                      190
Arg Tyr Phe Gly Ala Arg Ala Ile Leu Gly Glu Gln Arg Pro Arg Gln
      195                      200                      205
Arg Gln Arg Val Tyr Pro Lys Cys Thr Trp Leu Thr Thr Pro Lys Ser
      210                      215                      220
Thr Trp Pro Arg Tyr Ser Lys Pro Gly Leu Ser Met Arg Leu Leu Glu
      225                      230                      235                      240

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Ser Lys Lys Gly Leu Ser Phe Phe Ala Phe Glu His Ser Glu Glu Tyr
      245      250      255
Gln Gln Ala Gln His Lys Phe Leu Val Ala Val Glu Ser Met Glu Pro
      260      265      270
Asn Asn Ile Val Leu Ser Asp Ala Cys Arg Phe Gln Glu Asp Gln Glu
      275      280      285
Met Ala Arg Asp Leu Val Glu Arg Ala Leu Tyr Ser Met Glu Cys Ala
      290      295      300
Phe His Pro Leu Phe Ser Leu Thr Ser Gly Ala Cys Arg Leu Asp Tyr
      305      310      315      320
Arg Arg Pro Glu Asn Arg Ser Phe Tyr Leu Ala Leu Tyr Lys Gln Met
      325      330      335
Ser Phe Leu Glu Lys Arg Gly Cys Pro Arg Thr Ala Leu Glu Tyr Cys
      340      345      350
Lys Leu Ile Leu Ser Leu Glu Pro Asp Glu Asp Pro Leu Cys Met Leu
      355      360      365
Leu Leu Ile Asp His Leu Ala Leu Arg Ala Arg Asn Tyr Glu Tyr Leu
      370      375      380
Ile Arg Leu Phe Gln Glu Trp Glu Val Gly Ala Ser Leu Ala His Arg
      385      390      395      400
Asn Leu Ser Gln Leu Pro Asn Phe Ala Phe Ser Val Pro Leu Ala Tyr
      405      410      415
Phe Leu Leu Ser Gln Gln Thr Asp Leu Pro Glu Cys Glu Gln Ser Ser
      420      425      430
Ala Arg Gln Lys Ala Ser Leu Leu Ile Gln Gln Ala Leu Thr Met Phe
      435      440      445
Pro Gly Val Leu Leu Pro Leu Leu Glu Ser Cys Ser Val Arg Pro Asp
      450      455      460
Ala Ser Val Ser Ser His Arg Phe Phe Gly Pro Asn Ala Glu Ile Ser
      465      470      475      480
Gln Pro Pro Ala Leu Ser Gln Leu Val Asn Leu Tyr Leu Gly Arg Ser
      485      490      495
His Phe Leu Trp Lys Glu Pro Ala Thr Met Ser Trp Leu Glu Glu Asn
      500      505      510
Val His Glu Val Leu Gln Ala Val Asp Ala Gly Asp Pro Ala Val Glu
      515      520      525
Ala Cys Glu Asn Arg Arg Lys Val Leu Tyr Gln Arg Ala Pro Arg Asn
      530      535      540
Ile His Arg His Val Ile Leu Ser Glu Ile Lys Glu Ala Val Ala Ala
      545      550      555      560
Leu Pro Pro Asp Val Thr Thr Gln Ser Val Met Gly Phe Asp Pro Leu
      565      570      575
Pro Pro Ser Asp Thr Ile Tyr Ser Tyr Val Arg Pro Glu Arg Leu Ser
      580      585      590
Pro Ile Ser His Gly Asn Thr Ile Ala Leu Phe Phe Arg Ser Leu Leu
      595      600      605
Pro Asn Tyr Thr Met Glu Gly Glu Arg Pro Glu Glu Gly Val Ala Gly
      610      615      620
Gly Leu Asn Arg Asn Gln Gly Leu Asn Arg Leu Met Leu Ala Val Arg
      625      630      635      640
Asp Met Met Ala Asn Phe His Leu Asn Asp Leu Glu Ala Pro His Glu
      645      650      655
Asp Asp Ala Glu Gly Glu Gly Glu Trp Asp *
      660      665      666

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&lt;210&gt; 1588

&lt;211&gt; 548

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1588

Met	Phe	Tyr	Tyr	Pro	Asn	Val	Leu	Gln	Arg	His	Thr	Gly	Cys	Phe	Ala
1				5					10					15	
Thr	Ile	Trp	Leu	Ala	Ala	Thr	Arg	Gly	Ser	Arg	Leu	Val	Lys	Arg	Glu
			20					25					30		
Tyr	Leu	Arg	Val	Asn	Val	Val	Lys	Thr	Cys	Glu	Glu	Ile	Leu	Asn	Tyr
		35					40					45			
Val	Leu	Val	Arg	Val	Gln	Pro	Pro	Gln	Pro	Gly	Leu	Pro	Arg	Pro	Arg
		50				55					60				
Phe	Ser	Leu	Tyr	Leu	Ser	Ala	Gln	Leu	Gln	Ile	Gly	Val	Ile	Arg	Val
		65			70					75				80	
Tyr	Ser	Gln	Gln	Cys	Gln	Tyr	Leu	Val	Glu	Asp	Ile	Gln	His	Ile	Leu
			85						90					95	
Glu	Arg	Leu	His	Arg	Ala	Gln	Leu	Gln	Ile	Arg	Ile	Asp	Met	Glu	Thr
			100					105					110		
Glu	Leu	Pro	Ser	Leu	Leu	Leu	Pro	Asn	His	Leu	Ala	Met	Met	Glu	Thr
		115					120					125			
Leu	Glu	Asp	Ala	Pro	Asp	Pro	Phe	Phe	Gly	Met	Met	Ser	Val	Asp	Pro
		130				135						140			
Arg	Leu	Pro	Ser	Pro	Phe	Asp	Ile	Pro	Gln	Ile	Arg	His	Leu	Leu	Glu
		145				150					155				160
Ala	Ala	Ile	Pro	Glu	Arg	Val	Glu	Glu	Ile	Pro	Pro	Glu	Val	Pro	Thr
			165					170						175	
Glu	Pro	Arg	Glu	Pro	Glu	Arg	Ile	Pro	Val	Thr	Val	Leu	Pro	Pro	Glu
			180					185					190		
Ala	Ile	Thr	Ile	Leu	Glu	Ala	Glu	Pro	Ile	Arg	Met	Leu	Glu	Ile	Glu
		195					200					205			
Gly	Glu	Arg	Glu	Leu	Pro	Glu	Val	Ser	Arg	Arg	Glu	Leu	Asp	Leu	Leu
		210				215					220				
Ile	Ala	Glu	Glu	Glu	Glu	Ala	Ile	Leu	Leu	Glu	Ile	Pro	Arg	Leu	Pro
		225				230					235				240
Pro	Pro	Ala	Pro	Ala	Glu	Val	Glu	Gly	Ile	Gly	Glu	Ala	Leu	Gly	Pro
			245					250						255	
Glu	Glu	Leu	Arg	Leu	Thr	Gly	Trp	Glu	Pro	Gly	Ala	Leu	Leu	Met	Glu
		260						265					270		
Val	Thr	Pro	Pro	Glu	Glu	Leu	Arg	Leu	Pro	Ala	Pro	Pro	Ser	Pro	Glu
		275					280						285		
Arg	Arg	Pro	Pro	Val	Pro	Pro	Pro	Pro	Arg	Arg	Arg	Arg	Arg	Arg	Arg
		290				295						300			
Leu	Leu	Phe	Trp	Asp	Lys	Glu	Thr	Gln	Ile	Ser	Pro	Glu	Lys	Phe	Gln
		305			310					315					320
Glu	Gln	Leu	Gln	Thr	Arg	Ala	His	Cys	Trp	Glu	Cys	Pro	Met	Val	Gln
			325						330					335	
Pro	Pro	Glu	Arg	Thr	Ile	Arg	Gly	Pro	Ala	Glu	Leu	Phe	Arg	Thr	Pro
		340						345					350		
Thr	Leu	Ser	Gly	Trp	Leu	Pro	Pro	Glu	Leu	Leu	Gly	Leu	Trp	Thr	His
		355				360						365			
Cys	Ala	Gln	Pro	Pro	Pro	Lys	Ala	Leu	Arg	Arg	Glu	Leu	Pro	Glu	Glu
		370				375					380				
Ala	Ala	Ala	Glu	Glu	Glu	Arg	Arg	Lys	Ile	Glu	Val	Pro	Ser	Glu	Ile
		385				390				395					400
Glu	Val	Pro	Arg	Glu	Ala	Leu	Glu	Pro	Ser	Val	Pro	Leu	Met	Val	Ser
			405					410						415	
Leu	Glu	Ile	Ser	Leu	Glu	Ala	Ala	Glu	Glu	Glu	Lys	Ser	Arg	Ile	Ser
			420					425					430		
Leu	Ile	Pro	Pro	Glu	Glu	Arg	Trp	Ala	Trp	Pro	Glu	Val	Glu	Ala	Pro
		435					440						445		
Glu	Ala	Pro	Ala	Leu	Pro	Val	Val	Pro	Glu	Leu	Pro	Glu	Val	Pro	Met
		450				455					460				
Glu	Met	Pro	Leu	Val	Leu	Pro	Pro	Glu	Leu	Glu	Leu	Leu	Ser	Leu	Glu
		465				470					475				480
Ala	Val	His	Arg	Ala	Val	Ala	Leu	Glu	Leu	Gln	Ala	Asn	Arg	Glu	Pro
			485						490					495	
Asp	Phe	Ser	Ser	Leu	Val	Ser	Pro	Leu	Ser	Pro	Arg	Arg	Met	Ala	Ala
			500					505						510	

Arg Val Phe Tyr Leu Leu Leu Val Leu Ser Ala Gln Gln Ile Leu His  
           515                                  520                  525  
 Val Lys Gln Glu Lys Pro Tyr Gly Arg Leu Leu Ile Gln Pro Gly Pro  
           530                                  535                  540  
 Arg Phe His \*  
 545          547

<210> 1589  
 <211> 526  
 <212> PRT  
 <213> Homo sapiens

<400> 1589  
 Met Phe Tyr Tyr Pro Asn Val Leu Gln Arg His Thr Gly Cys Phe Ala  
   1                                  5                  10                  15  
 Thr Ile Trp Leu Ala Ala Thr Arg Gly Ser Arg Leu Val Lys Arg Glu  
           20                                  25                  30  
 Tyr Leu Arg Val Asn Val Val Lys Thr Cys Glu Glu Ile Leu Asn Tyr  
           35                                  40                  45  
 Val Leu Val Arg Val Gln Pro Pro Gln Pro Gly Leu Pro Arg Pro Arg  
           50                                  55                  60  
 Phe Ser Leu Tyr Leu Ser Ala Gln Leu Gln Ile Gly Val Ile Arg Val  
           65                                  70                  75                  80  
 Tyr Ser Gln Gln Cys Gln Tyr Leu Val Glu Asp Ile Gln His Ile Leu  
                                   85                  90                  95  
 Glu Arg Leu His Arg Ala Gln Leu Gln Ile Arg Ile Asp Met Glu Thr  
                                   100                  105                  110  
 Glu Leu Pro Ser Leu Leu Leu Pro Asn His Leu Ala Met Met Glu Thr  
           115                                  120                  125  
 Leu Glu Asp Ala Pro Asp Pro Phe Phe Gly Met Met Ser Val Asp Pro  
           130                                  135                  140  
 Arg Leu Pro Ser Pro Phe Asp Ile Pro Gln Ile Arg His Leu Leu Glu  
           145                                  150                  155                  160  
 Ala Ala Ile Pro Glu Arg Val Glu Glu Ile Pro Pro Glu Val Pro Thr  
                                   165                  170                  175  
 Glu Pro Arg Glu Pro Glu Arg Ile Pro Val Thr Val Leu Pro Pro Glu  
           180                                  185                  190  
 Ala Ile Thr Ile Leu Glu Ala Glu Pro Ile Arg Met Leu Glu Ile Glu  
           195                                  200                  205  
 Gly Glu Arg Glu Leu Pro Glu Val Ser Arg Arg Glu Leu Asp Leu Leu  
           210                                  215                  220  
 Ile Ala Glu Glu Glu Glu Ala Ile Leu Leu Glu Ile Pro Arg Leu Pro  
           225                                  230                  235                  240  
 Pro Pro Ala Pro Ala Glu Val Glu Gly Ile Gly Glu Ala Leu Gly Pro  
                                   245                  250                  255  
 Glu Glu Leu Arg Leu Thr Gly Trp Glu Pro Gly Ala Leu Leu Met Glu  
           260                                  265                  270  
 Val Thr Pro Pro Glu Glu Leu Arg Leu Pro Ala Pro Pro Ser Pro Glu  
           275                                  280                  285  
 Arg Arg Pro Pro Val Pro Pro Pro Arg Arg Arg Arg Arg Arg Arg  
           290                                  295                  300  
 Leu Leu Phe Trp Asp Lys Glu Thr Gln Ile Ser Pro Glu Lys Phe Gln  
           305                                  310                  315                  320  
 Glu Gln Leu Gln Thr Arg Ala His Cys Trp Glu Cys Pro Met Val Gln  
                                   325                  330                  335  
 Pro Pro Glu Arg Thr Ile Arg Gly Pro Ala Glu Leu Phe Arg Thr Pro  
           340                                  345                  350  
 Thr Leu Ser Gly Trp Leu Pro Pro Glu Leu Leu Gly Leu Trp Thr His  
           355                                  360                  365  
 Cys Ala Gln Pro Pro Pro Lys Ala Leu Arg Arg Glu Leu Pro Glu Glu  
           370                                  375                  380

Ala Ala Ala Glu Glu Glu Arg Arg Lys Ile Glu Val Pro Ser Glu Ile  
 385 390 395 400  
 Glu Val Pro Arg Glu Ala Leu Glu Pro Ser Val Pro Leu Met Val Ser  
 405 410 415  
 Leu Glu Ile Ser Leu Glu Ala Ala Glu Glu Lys Ser Arg Ile Ser  
 420 425 430  
 Leu Ile Pro Pro Glu Glu Arg Trp Ala Trp Pro Glu Val Glu Ala Pro  
 435 440 445  
 Glu Ala Pro Ala Leu Pro Val Val Pro Glu Leu Pro Glu Val Pro Met  
 450 455 460  
 Glu Met Pro Leu Val Leu Pro Pro Glu Leu Glu Leu Leu Ser Leu Glu  
 465 470 475 480  
 Ala Val His Ser Pro Arg Arg Met Ala Ala Arg Val Phe Tyr Leu Leu  
 485 490 495  
 Leu Val Leu Ser Ala Gln Gln Ile Leu His Val Lys Gln Glu Lys Pro  
 500 505 510  
 Tyr Gly Arg Leu Leu Ile Gln Pro Gly Pro Arg Phe His \*  
 515 520 525

<210> 1590  
 <211> 588  
 <212> PRT  
 <213> Homo sapiens

<400> 1590  
 Met Ala Ser Glu Asp Ile Ala Lys Leu Ala Glu Thr Leu Ala Lys Thr  
 1 5 10 15  
 Gln Val Ala Gly Gly Gln Leu Ser Phe Lys Gly Lys Ser Leu Lys Leu  
 20 25 30  
 Asn Thr Ala Glu Asp Ala Lys Asp Val Ile Lys Glu Ile Glu Asp Phe  
 35 40 45  
 Asp Ser Leu Glu Ala Leu Arg Leu Glu Gly Asn Thr Val Gly Val Glu  
 50 55 60  
 Ala Ala Arg Val Ile Ala Lys Ala Leu Glu Lys Lys Ser Glu Leu Lys  
 65 70 75 80  
 Arg Cys His Trp Ser Asp Met Phe Thr Gly Arg Leu Arg Thr Glu Ile  
 85 90 95  
 Pro Pro Ala Leu Ile Ser Leu Gly Glu Gly Leu Ile Thr Ala Gly Ala  
 100 105 110  
 Gln Leu Val Glu Leu Asp Leu Ser Asp Asn Ala Phe Gly Pro Asp Gly  
 115 120 125  
 Val Gln Gly Phe Glu Ala Leu Leu Lys Ser Ser Ala Cys Phe Thr Leu  
 130 135 140  
 Gln Glu Leu Lys Leu Asn Asn Cys Gly Met Gly Ile Gly Gly Gly Lys  
 145 150 155 160  
 Ile Leu Ala Ala Ala Leu Thr Glu Cys His Arg Lys Ser Ser Ala Gln  
 165 170 175  
 Gly Lys Pro Leu Ala Leu Lys Val Phe Val Ala Gly Arg Asn Arg Leu  
 180 185 190  
 Glu Asn Asp Gly Ala Thr Ala Leu Ala Glu Ala Phe Arg Val Ile Gly  
 195 200 205  
 Thr Leu Glu Glu Val His Met Pro Gln Asn Gly Ile Asn His Pro Gly  
 210 215 220  
 Ile Thr Ala Leu Ala Gln Ala Phe Ala Val Asn Pro Leu Leu Arg Val  
 225 230 235 240  
 Ile Asn Leu Asn Asp Asn Thr Phe Thr Glu Lys Gly Ala Val Ala Met  
 245 250 255  
 Ala Glu Thr Leu Lys Thr Leu Arg Gln Val Glu Val Ile Asn Phe Gly  
 260 265 270  
 Asp Cys Leu Val Arg Ser Lys Gly Ala Val Ala Ile Ala Asp Ala Ile  
 275 280 285

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Arg Gly Gly Leu Pro Lys Leu Lys Glu Leu Asn Leu Ser Phe Cys Glu
 290                               295           300
Ile Lys Arg Asp Ala Ala Leu Ala Val Ala Glu Ala Met Ala Asp Lys
 305                               310           315           320
Ala Glu Leu Glu Lys Leu Asp Leu Asn Gly Asn Thr Leu Gly Glu Glu
                               325           330           335
Gly Cys Glu Gln Leu Gln Glu Val Leu Glu Gly Phe Asn Met Ala Lys
                               340           345           350
Val Leu Ala Ser Leu Ser Asp Asp Glu Asp Glu Glu Glu Glu Glu
 355                               360           365
Gly Glu Glu Glu Glu Glu Glu Ala Glu Glu Glu Glu Glu Asp Glu
 370                               375           380
Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Pro Gln Gln
 385                               390           395           400
Arg Gly Gln Gly Glu Lys Ser Ala Thr Pro Ser Arg Lys Ile Leu Asp
                               405           410           415
Pro Asn Thr Gly Glu Pro Ala Pro Val Leu Ser Ser Pro Pro Pro Ala
 420                               425           430
Asp Val Ser Thr Phe Leu Ala Phe Pro Ser Pro Glu Lys Leu Leu Arg
 435                               440           445
Leu Gly Pro Lys Ser Ser Val Leu Ile Ala Gln Gln Thr Asp Thr Ser
 450                               455           460
Asp Pro Glu Lys Val Val Ser Ala Phe Leu Lys Val Ser Ser Val Phe
 465                               470           475           480
Lys Asp Glu Ala Thr Val Arg Met Ala Val Gln Asp Ala Val Asp Ala
                               485           490           495
Leu Met Gln Lys Ala Phe Asn Ser Ser Ser Phe Asn Ser Asn Thr Phe
 500                               505           510
Leu Thr Arg Leu Leu Val His Met Gly Leu Leu Lys Ser Glu Asp Lys
 515                               520           525
Val Lys Ala Ile Ala Asn Leu Tyr Gly Pro Leu Met Ala Leu Asn His
 530                               535           540
Met Val Gln Gln Asp Tyr Phe Pro Lys Ala Leu Ala Pro Leu Leu Leu
 545                               550           555           560
Ala Phe Val Thr Lys Pro Asn Ser Ala Leu Glu Ser Cys Ser Phe Ala
 565                               570           575
Arg His Ser Leu Leu Gln Thr Leu Tyr Lys Val *
 580                               585           587

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<210> 1591
<211> 561
<212> PRT
<213> Homo sapiens

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<400> 1591
Met Ala Ser Glu Asp Ile Ala Lys Leu Ala Glu Thr Leu Ala Lys Thr
 1                               5           10           15
Gln Val Ala Gly Gly Gln Leu Ser Phe Lys Gly Lys Ser Leu Lys Leu
 20                               25           30
Asn Thr Ala Glu Asp Ala Lys Asp Val Ile Lys Glu Ile Glu Asp Phe
 35                               40           45
Asp Ser Leu Glu Ala Leu Arg Leu Glu Gly Asn Thr Val Gly Val Glu
 50                               55           60
Ala Ala Arg Val Ile Ala Lys Ala Leu Glu Lys Lys Ser Glu Leu Lys
 65                               70           75           80
Arg Cys His Trp Ser Asp Met Phe Thr Gly Arg Leu Arg Thr Glu Ile
 85                               90           95
Pro Pro Ala Leu Ile Ser Leu Gly Glu Gly Leu Ile Thr Ala Gly Ala
 100                              105          110
Gln Leu Val Glu Leu Asp Leu Ser Asp Asn Ala Phe Gly Pro Asp Gly
 115                              120          125

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Val	Gln	Gly	Phe	Glu	Ala	Leu	Leu	Lys	Ser	Ser	Ala	Cys	Phe	Thr	Leu
130						135					140				
Gln	Glu	Leu	Lys	Leu	Asn	Asn	Cys	Gly	Met	Gly	Ile	Gly	Gly	Gly	Lys
145					150					155					160
Ile	Leu	Ala	Ala	Ala	Leu	Thr	Glu	Cys	His	Arg	Lys	Ser	Ser	Ala	Gln
				165					170					175	
Gly	Lys	Pro	Leu	Ala	Leu	Lys	Val	Phe	Val	Ala	Gly	Arg	Asn	Arg	Leu
			180					185					190		
Glu	Asn	Asp	Gly	Ala	Thr	Ala	Leu	Ala	Glu	Ala	Phe	Arg	Val	Ile	Gly
		195				200						205			
Thr	Leu	Glu	Glu	Val	His	Met	Pro	Gln	Asn	Gly	Ile	Asn	His	Pro	Gly
210					215						220				
Ile	Thr	Ala	Leu	Ala	Gln	Ala	Phe	Ala	Val	Asn	Pro	Leu	Leu	Arg	Val
225					230					235					240
Ile	Asn	Leu	Asn	Asp	Asn	Thr	Phe	Thr	Glu	Lys	Gly	Ala	Val	Ala	Met
				245					250					255	
Ala	Glu	Thr	Leu	Lys	Thr	Leu	Arg	Gln	Val	Glu	Val	Ile	Asn	Phe	Gly
			260					265					270		
Asp	Cys	Leu	Val	Arg	Ser	Lys	Gly	Ala	Val	Ala	Ile	Ala	Asp	Ala	Ile
		275					280						285		
Arg	Gly	Gly	Leu	Pro	Lys	Leu	Lys	Glu	Leu	Asn	Leu	Ser	Phe	Cys	Glu
290						295					300				
Ile	Lys	Arg	Asp	Ala	Ala	Leu	Ala	Val	Ala	Glu	Ala	Met	Ala	Asp	Lys
305					310					315					320
Ala	Glu	Leu	Glu	Lys	Leu	Asp	Leu	Asn	Gly	Asn	Thr	Leu	Gly	Glu	Glu
				325					330					335	
Gly	Cys	Glu	Gln	Leu	Gln	Glu	Val	Leu	Glu	Gly	Phe	Asn	Met	Ala	Lys
			340					345					350		
Val	Leu	Ala	Ser	Leu	Ser	Asp	Asp	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Glu
		355					360						365		
Glu	Glu	Pro	Gln	Gln	Arg	Gly	Gln	Gly	Glu	Lys	Ser	Ala	Thr	Pro	Ser
370						375						380			
Arg	Lys	Ile	Leu	Asp	Pro	Asn	Thr	Gly	Glu	Pro	Ala	Pro	Val	Leu	Ser
385					390					395					400
Ser	Pro	Pro	Pro	Ala	Asp	Val	Ser	Thr	Phe	Leu	Ala	Phe	Pro	Ser	Pro
				405					410					415	
Glu	Lys	Leu	Leu	Arg	Leu	Gly	Pro	Lys	Ser	Ser	Val	Leu	Ile	Ala	Gln
				420				425					430		
Gln	Thr	Asp	Thr	Ser	Asp	Pro	Glu	Lys	Val	Val	Ser	Ala	Phe	Leu	Lys
		435					440					445			
Val	Ser	Ser	Val	Phe	Lys	Asp	Glu	Ala	Thr	Val	Arg	Met	Ala	Val	Gln
		450				455					460				
Asp	Ala	Val	Asp	Ala	Leu	Met	Gln	Lys	Ala	Phe	Asn	Ser	Ser	Ser	Phe
465					470					475					480
Asn	Ser	Asn	Thr	Phe	Leu	Thr	Arg	Leu	Leu	Val	His	Met	Gly	Leu	Leu
				485					490					495	
Lys	Ser	Glu	Asp	Lys	Val	Lys	Ala	Ile	Ala	Asn	Leu	Tyr	Gly	Pro	Leu
			500					505					510		
Met	Ala	Leu	Asn	His	Met	Val	Gln	Gln	Asp	Tyr	Phe	Pro	Lys	Ala	Leu
		515					520						525		
Ala	Pro	Leu	Leu	Leu	Ala	Phe	Val	Thr	Lys	Pro	Asn	Ser	Ala	Leu	Glu
		530				535					540				
Ser	Cys	Ser	Phe	Ala	Arg	His	Ser	Leu	Leu	Gln	Thr	Leu	Tyr	Lys	Val
545					550					555					560

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&lt;210&gt; 1592

&lt;211&gt; 308

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1592

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Met Ile His Asp Ala Gln Met Asp Tyr Tyr Gly Thr Arg Leu Ala Thr
 1           5           10           15
Cys Ser Ser Asp Arg Ser Val Lys Ile Phe Asp Val Arg Asn Gly Gly
          20           25           30
Gln Ile Leu Ile Ala Asp Leu Arg Gly His Glu Gly Pro Val Trp Gln
          35           40           45
Val Ala Trp Ala His Pro Met Tyr Gly Asn Ile Leu Ala Ser Cys Ser
          50           55           60
Tyr Asp Arg Lys Val Ile Trp Arg Glu Glu Asn Gly Thr Trp Glu
          65           70           75           80
Lys Ser His Glu His Ala Gly His Asp Ser Ser Val Asn Ser Val Cys
          85           90           95
Trp Ala Pro His Asp Tyr Gly Leu Ile Leu Ala Cys Gly Ser Ser Asp
          100           105           110
Gly Ala Ile Ser Leu Leu Thr Tyr Thr Gly Glu Gly Gln Trp Glu Val
          115           120           125
Lys Lys Ile Asn Asn Ala His Thr Ile Gly Cys Asn Ala Val Ser Trp
          130           135           140
Ala Pro Ala Val Val Pro Gly Ser Leu Ile Asp His Pro Ser Gly Gln
          145           150           155           160
Lys Pro Asn Tyr Ile Lys Arg Phe Ala Ser Gly Gly Cys Asp Asn Leu
          165           170           175
Ile Lys Leu Trp Lys Glu Glu Glu Asp Gly Gln Trp Lys Glu Glu Gln
          180           185           190
Lys Leu Glu Ala His Ser Asp Trp Val Arg Asp Val Ala Trp Ala Pro
          195           200           205
Ser Ile Gly Leu Pro Thr Ser Thr Ile Ala Ser Cys Ser Gln Asp Gly
          210           215           220
Arg Val Phe Ile Trp Thr Cys Asp Asp Ala Ser Ser Asn Thr Trp Ser
          225           230           235           240
Pro Lys Leu Leu His Lys Phe Asn Asp Val Val Trp His Val Ser Trp
          245           250           255
Ser Ile Thr Ala Asn Ile Leu Ala Val Ser Gly Gly Asp Asn Lys Val
          260           265           270
Thr Leu Trp Lys Glu Ser Val Asp Gly Gln Trp Val Cys Ile Ser Asp
          275           280           285
Val Asn Lys Gly Gln Gly Ser Val Ser Ala Ser Val Thr Glu Gly Gln
          290           295           300
Gln Asn Glu Gln
          305           308

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&lt;210&gt; 1593

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1593

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Met Thr Ser Thr Leu Pro Lys Ala Leu Gly Arg Lys Thr Ala Ser Arg
 1           5           10           15
Ser His Thr Thr Leu Gln Gly Gly Ser Cys Cys Pro Val Leu Trp Thr
          20           25           30
Ala Lys Leu Arg Cys Arg Lys Leu Arg Phe Pro Leu Pro Pro Pro Pro
          35           40           45
Pro Ser Ser Ser Ala Trp Pro Trp Gln Gly Trp Gly Ile Arg Gly Glu
          50           55           60
Gln Glu Ala Glu Gly Pro Leu Gly Glu Thr Gly Pro Pro Val Gly Pro
          65           70           75           80
Glu Leu Ser Gly Leu Arg Gln Trp Arg Lys Leu Ile Lys Gly Arg Tyr
          85           90           95

```



Gly Glu Trp Arg Gly Ser Gly Gln Lys Thr Gly Gln Pro Ser \*  
 100 105 110

<210> 1594  
 <211> 546  
 <212> PRT  
 <213> Homo sapiens

<400> 1594  
 Met Met Gly His Arg Pro Val Leu Val Leu Ser Gln Asn Thr Lys Arg  
 1 5 10 15  
 Glu Ser Gly Arg Lys Val Gln Ser Gly Asn Ile Asn Ala Ala Lys Thr  
 20 25 30  
 Ile Ala Asp Ile Ile Arg Thr Cys Leu Gly Pro Lys Ser Met Met Lys  
 35 40 45  
 Met Leu Leu Asp Pro Met Gly Gly Ile Val Met Thr Asn Asp Gly Asn  
 50 55 60  
 Ala Ile Leu Arg Glu Ile Gln Val Gln His Pro Ala Ala Lys Ser Met  
 65 70 75 80  
 Ile Glu Ile Ser Arg Thr Gln Asp Glu Glu Val Gly Asp Gly Thr Thr  
 85 90 95  
 Ser Val Ile Ile Leu Ala Gly Glu Met Leu Ser Val Ala Glu His Phe  
 100 105 110  
 Leu Glu Gln Gln Met His Pro Thr Val Val Ile Ser Ala Tyr Arg Lys  
 115 120 125  
 Ala Leu Asp Asp Met Ile Ser Thr Leu Lys Lys Ile Ser Ile Pro Val  
 130 135 140  
 Asp Ile Ser Asp Ser Asp Met Met Leu Asn Ile Ile Asn Ser Ser Ile  
 145 150 155 160  
 Thr Thr Lys Ala Ile Ser Arg Trp Ser Ser Leu Ala Cys Asn Ile Ala  
 165 170 175  
 Leu Asp Ala Val Lys Met Val Gln Phe Glu Glu Asn Gly Arg Lys Glu  
 180 185 190  
 Ile Asp Ile Lys Lys Tyr Ala Arg Val Glu Lys Ile Pro Gly Gly Ile  
 195 200 205  
 Ile Glu Asp Ser Cys Val Leu Arg Gly Val Met Ile Asn Lys Asp Val  
 210 215 220  
 Thr His Pro Arg Met Arg Arg Tyr Ile Lys Asn Pro Arg Ile Val Leu  
 225 230 235 240  
 Leu Asp Ser Ser Leu Glu Tyr Lys Lys Gly Glu Ser Gln Thr Asp Ile  
 245 250 255  
 Glu Ile Thr Arg Glu Glu Asp Phe Thr Arg Ile Leu Gln Met Glu Glu  
 260 265 270  
 Glu Tyr Ile Gln Gln Leu Cys Glu Asp Ile Ile Gln Leu Lys Pro Asp  
 275 280 285  
 Val Val Ile Thr Glu Lys Gly Ile Ser Asp Leu Ala Gln His Tyr Leu  
 290 295 300  
 Met Arg Ala Asn Ile Thr Ala Ile Arg Arg Val Arg Lys Thr Asp Asn  
 305 310 315 320  
 Asn Arg Ile Ala Arg Ala Cys Gly Ala Arg Ile Val Ser Arg Pro Glu  
 325 330 335  
 Glu Leu Arg Glu Asp Asp Val Gly Thr Gly Ala Gly Leu Leu Glu Ile  
 340 345 350  
 Lys Lys Ile Gly Asp Glu Tyr Phe Thr Phe Ile Thr Asp Cys Lys Asp  
 355 360 365  
 Pro Lys Ala Cys Thr Ile Leu Leu Arg Gly Ala Ser Lys Glu Ile Leu  
 370 375 380  
 Ser Glu Val Glu Arg Asn Leu Gln Asp Ala Met Gln Val Cys Arg Asn  
 385 390 395 400  
 Val Leu Leu Asp Pro Gln Leu Val Pro Gly Gly Gly Ala Ser Glu Met  
 405 410 415

Ala Val Ala His Ala Leu Thr Glu Lys Ser Lys Ala Met Thr Gly Val  
 420 425 430  
 Glu Gln Trp Pro Tyr Arg Ala Val Ala Gln Ala Leu Glu Val Ile Pro  
 435 440 445  
 Arg Thr Leu Ile Gln Asn Cys Gly Ala Ser Thr Ile Arg Leu Leu Thr  
 450 455 460  
 Ser Leu Arg Ala Lys His Thr Gln Glu Asn Cys Glu Thr Trp Gly Val  
 465 470 475 480  
 Asn Gly Glu Thr Gly Thr Leu Val Asp Met Lys Glu Leu Gly Ile Trp  
 485 490 495  
 Glu Pro Leu Ala Val Lys Leu Gln Thr Tyr Lys Thr Ala Val Glu Thr  
 500 505 510  
 Ala Val Leu Leu Arg Ile Asp Asp Ile Val Ser Gly His Lys Lys  
 515 520 525  
 Lys Gly Asp Asp Gln Ser Arg Gln Gly Gly Ala Pro Asp Ala Gly Gln  
 530 535 540  
 Glu \*  
 545

<210> 1595  
 <211> 307  
 <212> PRT  
 <213> Homo sapiens

<400> 1595  
 Met Ala Ala Val Asp Asp Leu Gln Phe Glu Glu Phe Gly Asn Ala Ala  
 1 5 10 15  
 Thr Ser Leu Thr Ala Asn Pro Asp Ala Thr Thr Val Asn Ile Glu Asp  
 20 25 30  
 Pro Gly Glu Thr Pro Lys His Gln Pro Gly Ser Pro Arg Gly Ser Gly  
 35 40 45  
 Arg Glu Glu Asp Asp Glu Leu Leu Gly Asn Asp Asp Ser Asp Lys Thr  
 50 55 60  
 Glu Leu Leu Ala Gly Gln Lys Lys Ser Ser Pro Phe Trp Thr Phe Glu  
 65 70 75 80  
 Tyr Tyr Gln Thr Phe Phe Asp Val Asp Thr Tyr Gln Val Phe Asp Arg  
 85 90 95  
 Ile Lys Gly Ser Leu Leu Pro Ile Pro Gly Lys Asn Phe Val Arg Leu  
 100 105 110  
 Tyr Ile Arg Ser Asn Pro Asp Leu Tyr Gly Pro Phe Trp Ile Cys Ala  
 115 120 125  
 Thr Leu Val Phe Ala Ile Ala Ile Ser Gly Asn Leu Ser Asn Phe Leu  
 130 135 140  
 Ile His Leu Gly Glu Lys Thr Tyr His Tyr Val Pro Glu Phe Arg Lys  
 145 150 155 160  
 Val Ser Ile Ala Ala Thr Ile Ile Tyr Ala Tyr Ala Trp Leu Val Pro  
 165 170 175  
 Leu Ala Leu Trp Gly Phe Leu Met Trp Arg Asn Ser Lys Val Met Asn  
 180 185 190  
 Ile Val Ser Tyr Ser Phe Leu Glu Ile Val Cys Val Tyr Gly Tyr Ser  
 195 200 205  
 Leu Phe Ile Tyr Ile Pro Thr Ala Ile Leu Trp Ile Ile Pro Gln Lys  
 210 215 220  
 Ala Val Arg Trp Ile Leu Val Met Ile Ala Leu Gly Ile Ser Gly Ser  
 225 230 235 240  
 Leu Leu Ala Met Thr Phe Trp Pro Ala Val Arg Glu Asp Asn Arg Arg  
 245 250 255  
 Val Ala Leu Ala Thr Ile Val Thr Ile Val Leu Leu His Met Leu Leu  
 260 265 270  
 Ser Val Gly Cys Leu Ala Tyr Phe Phe Asp Ala Pro Glu Met Asp His  
 275 280 285

Leu Pro Thr Thr Thr Ala Thr Pro Asn Gln Thr Val Ala Ala Ala Lys  
 290 295 300  
 Ser Ser \*  
 305 306

<210> 1596  
 <211> 82  
 <212> PRT  
 <213> Homo sapiens

<400> 1596  
 Met Thr Ala His Ser Phe Ala Leu Pro Val Ile Ile Phe Thr Thr Phe  
 1 5 10 15  
 Trp Gly Leu Val Gly Ile Ala Gly Pro Trp Phe Val Pro Lys Gly Pro  
 20 25 30  
 Asn Arg Gly Val Ile Ile Thr Met Leu Val Ala Thr Ala Val Cys Cys  
 35 40 45  
 Tyr Leu Phe Trp Leu Ile Ala Ile Leu Ala Gln Leu Asn Pro Leu Phe  
 50 55 60  
 Gly Pro Gln Leu Lys Asn Glu Thr Ile Trp Tyr Val Arg Phe Leu Trp  
 65 70 75 80  
 Glu \*  
 81

<210> 1597  
 <211> 385  
 <212> PRT  
 <213> Homo sapiens

<400> 1597  
 Met Met Tyr Ile Thr Ile Tyr Ser Met Met Lys Ile Pro His Gln Thr  
 1 5 10 15  
 Gln Lys Lys Arg Ser Leu Glu Asp Pro Asn Ser Arg Pro Arg Arg Pro  
 20 25 30  
 Arg Ser Met Ala Ala Thr Ser Leu Met Ser Ala Leu Ala Ala Arg Leu  
 35 40 45  
 Leu Gln Pro Ala His Ser Cys Ser Leu Arg Leu Arg Pro Phe His Leu  
 50 55 60  
 Ala Ala Val Arg Asn Glu Ala Val Val Ile Ser Gly Arg Lys Leu Ala  
 65 70 75 80  
 Gln Gln Ile Lys Gln Glu Val Arg Gln Glu Val Glu Glu Trp Val Ala  
 85 90 95  
 Ser Gly Asn Lys Arg Pro His Leu Ser Val Ile Leu Val Gly Glu Asn  
 100 105 110  
 Pro Ala Ser His Ser Tyr Val Leu Asn Lys Thr Arg Ala Ala Ala Val  
 115 120 125  
 Val Gly Ile Asn Ser Glu Thr Ile Met Lys Pro Ala Ser Ile Ser Glu  
 130 135 140  
 Glu Glu Leu Leu Asn Leu Ile Asn Lys Leu Asn Asn Asp Asp Asn Val  
 145 150 155 160  
 Asp Gly Leu Leu Val Gln Leu Pro Leu Pro Glu His Ile Asp Glu Arg  
 165 170 175  
 Arg Ile Cys Asn Ala Val Ser Pro Asp Lys Asp Val Asp Gly Phe His  
 180 185 190  
 Val Ile Asn Val Gly Arg Met Cys Leu Asp Gln Tyr Ser Met Leu Pro  
 195 200 205  
 Ala Thr Pro Trp Gly Val Trp Glu Ile Ile Lys Arg Thr Gly Ile Pro  
 210 215 220

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Thr Leu Gly Lys Asn Val Val Val Ala Gly Arg Ser Lys Asn Val Gly
225                230                235                240
Met Pro Ile Ala Met Leu Leu His Thr Asp Gly Ala His Glu Arg Pro
                245                250                255
Gly Gly Asp Ala Thr Val Thr Ile Ser His Arg Tyr Thr Pro Lys Glu
                260                265                270
Gln Leu Lys Lys His Thr Ile Leu Ala Asp Ile Val Ile Ser Ala Ala
                275                280                285
Gly Ile Pro Asn Leu Ile Thr Ala Asp Met Ile Lys Glu Gly Ala Ala
                290                295                300
Val Ile Asp Val Gly Ile Asn Arg Val His Asp Pro Val Thr Ala Lys
305                310                315                320
Pro Lys Leu Val Gly Asp Val Asp Phe Glu Gly Val Arg Gln Lys Ala
                325                330                335
Gly Tyr Ile Thr Pro Val Pro Gly Gly Val Gly Pro Met Thr Val Ala
                340                345                350
Met Leu Met Lys Asn Thr Ile Ile Ala Ala Lys Lys Val Leu Arg Leu
                355                360                365
Glu Glu Arg Glu Val Leu Lys Ser Lys Glu Leu Gly Val Ala Thr Asn
370                375                380                384

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<210> 1598
<211> 354
<212> PRT
<213> Homo sapiens

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<400> 1598
Met Ala Ala Pro Ala Gln Gln Thr Thr Gln Pro Gly Gly Gly Lys Arg
1          5          10          15
Lys Gly Lys Ala Gln Tyr Val Leu Ala Lys Arg Ala Arg Arg Cys Asp
                20          25          30
Ala Gly Gly Pro Arg Gln Leu Glu Pro Gly Leu Gln Gly Ile Leu Ile
                35          40          45
Thr Cys Asn Met Asn Glu Arg Lys Cys Val Glu Glu Ala Tyr Ser Leu
50          55          60
Leu Asn Glu Tyr Gly Asp Asp Met Tyr Gly Pro Glu Lys Phe Thr Asp
65          70          75          80
Lys Asp Gln Gln Pro Ser Gly Ser Glu Gly Glu Asp Asp Asp Ala Glu
                85          90          95
Ala Ala Leu Lys Lys Glu Val Gly Asp Ile Lys Ala Ser Thr Glu Met
100          105          110
Arg Leu Arg Arg Phe Gln Ser Val Glu Ser Gly Ala Asn Asn Val Val
115          120          125
Phe Ile Arg Thr Leu Gly Ile Glu Pro Glu Lys Leu Val His His Ile
130          135          140
Leu Gln Asp Met Tyr Lys Thr Lys Lys Lys Lys Thr Arg Val Ile Leu
145          150          155          160
Arg Met Leu Pro Ile Ser Gly Thr Cys Lys Ala Phe Leu Glu Asp Met
                165          170          175
Lys Lys Tyr Ala Glu Thr Phe Leu Glu Pro Trp Phe Lys Ala Pro Asn
180          185          190
Lys Gly Thr Phe Gln Ile Val Tyr Lys Ser Arg Asn Asn Ser His Val
195          200          205
Asn Arg Glu Glu Val Ile Arg Glu Leu Ala Gly Ile Val Cys Thr Leu
210          215          220
Asn Ser Glu Asn Lys Val Asp Leu Thr Asn Pro Gln Tyr Thr Val Val
225          230          235          240
Val Glu Ile Ile Lys Ala Val Cys Cys Leu Ser Val Val Lys Asp Tyr
                245          250          255

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Met Leu Phe Arg Lys Tyr Asn Leu Gln Glu Val Val Lys Ser Pro Lys  
 260 265 270  
 Asp Pro Ser Gln Leu Asn Ser Lys Gln Gly Asn Gly Lys Glu Ala Lys  
 275 280 285  
 Leu Glu Ser Ala Asp Lys Ser Asp Gln Asn Asn Thr Ala Glu Gly Lys  
 290 295 300  
 Asn Asn Gln Gln Val Pro Glu Asn Thr Glu Glu Leu Gly Gln Thr Lys  
 305 310 315 320  
 Pro Thr Ser Asn Pro Gln Val Val Asn Glu Gly Gly Ala Lys Pro Glu  
 325 330 335  
 Leu Ala Ser Gln Ala Thr Glu Gly Ser Lys Ser Asn Glu Asn Asp Phe  
 340 345 350  
 Ser \*  
 353

<210> 1599  
 <211> 1152  
 <212> PRT  
 <213> Homo sapiens

<400> 1599  
 Met Arg Ala Asp Glu Ile Lys Asp Ala Ile Tyr Val Thr Met Glu Ile  
 1 5 10 15  
 Leu Ser Asn Trp Gly Asn Ser Trp Trp Val Gly Leu Thr Glu Val Glu  
 20 25 30  
 Phe Phe Asp Leu Asn Asp Thr Lys Leu Tyr Val Ser Pro His Asp Val  
 35 40 45  
 Asp Ile Arg Asn Thr Ala Thr Pro Gly Glu Leu Gly Arg Leu Val Asn  
 50 55 60  
 Arg Asn Leu Ala Gly Lys Lys Asp Ser Ser Pro Trp Thr Cys Pro Phe  
 65 70 75 80  
 His Pro Pro Leu Gln Leu Phe Phe Val Ile Arg Asn Thr Arg Gln Leu  
 85 90 95  
 Gly Asp Phe His Leu Ala Lys Ile Lys Val Arg Asn Tyr Trp Thr Ala  
 100 105 110  
 Asp Gly Asp Leu Asp Ile Gly Ala Lys Asn Val Lys Leu Tyr Val Asn  
 115 120 125  
 Arg Asn Leu Ile Phe Asn Gly Lys Leu Asp Lys Gly Asp Arg Glu Ala  
 130 135 140  
 Pro Ala Asp His Ser Ile Leu Val Asp Gln Lys Asn Glu Lys Ser Glu  
 145 150 155 160  
 Gln Leu Glu Glu Ala Met Asn Ala His Ser Glu Glu Ser Lys Gly Thr  
 165 170 175  
 His Glu Met Ala Gly Ala Ser Gly Asp Lys Glu Leu Gly Leu Gly Cys  
 180 185 190  
 Ser Pro Pro Ala Glu Thr Leu Ala Asp Ala Lys Leu Ser Ser Gln Gly  
 195 200 205  
 Asn Val Ser Gly Lys Arg Lys Asn Ser Thr Asn Cys Arg Lys Asp Ser  
 210 215 220  
 Leu Ser Gln Leu Glu Glu Tyr Leu Arg Leu Ser Ala Val Pro Thr Ser  
 225 230 235 240  
 Met Gly Asp Met Pro Ser Ala Pro Ala Thr Ser Pro Pro Val Lys Cys  
 245 250 255  
 Pro Pro Val His Glu Glu Pro Ser Leu Ile Gln Gln Leu Glu Asn Leu  
 260 265 270  
 Met Gly Arg Lys Ile Cys Glu Pro Pro Gly Lys Thr Pro Ser Trp Leu  
 275 280 285  
 Gln Pro Ser Pro Thr Gly Lys Asp Arg Lys Gln Gly Arg Lys Pro  
 290 295 300  
 Lys Pro Leu Trp Leu Ser Pro Glu Lys Pro Leu Ala Trp Lys Gly Arg  
 305 310 315 320

Leu Pro Ser Asp Asp Val Ile Gly Glu Gly Pro Gly Glu Thr Glu Ala  
 325 330 335  
 Arg Asp Lys Gly Leu Arg His Glu Pro Gly Trp Gly Thr Ser Arg Ser  
 340 345 350  
 Val Asn Thr Lys Glu Arg Pro Gln Arg Ala Thr Thr Lys Val His Ser  
 355 360 365  
 Asp Asp Ser Asp Ile Phe Asn Gln Pro Pro Asn Arg Glu Arg Pro Ala  
 370 375 380  
 Ser Gly Arg Arg Gly Ser Arg Lys Asp Ala Gly Ser Ser Ser His Gly  
 385 390 395 400  
 Asp Asp Gln Pro Ala Ser Arg Glu Asp Thr Trp Ser Ser Arg Thr Pro  
 405 410 415  
 Ser Arg Ser Arg Trp Arg Ser Glu Gln Glu His Thr Leu His Glu Ser  
 420 425 430  
 Trp Ser Ser Leu Ser Ala Phe Asp Arg Ser His Arg Gly Arg Ile Ser  
 435 440 445  
 Asn Thr Glu Leu Pro Gly Asp Ile Leu Asp Glu Leu Leu Gln Gln Lys  
 450 455 460  
 Ser Ser Arg His Ser Asp Leu Pro Pro Ser Lys Lys Gly Glu Gln Pro  
 465 470 475 480  
 Gly Leu Ser Arg Gly Gln Asp Gly Tyr Ser Gly Glu Thr Asp Ala Gly  
 485 490 495  
 Gly Asp Phe Lys Ile Pro Val Leu Pro Tyr Gly Gln Arg Leu Val Ile  
 500 505 510  
 Asp Ile Lys Ser Thr Trp Gly Asp Arg His Tyr Val Gly Leu Asn Gly  
 515 520 525  
 Ile Glu Ile Phe Ser Ser Lys Gly Glu Pro Val Gln Ile Ser Asn Ile  
 530 535 540  
 Lys Ala Asp Pro Pro Asp Ile Asn Ile Leu Pro Ala Tyr Gly Lys Asp  
 545 550 555 560  
 Pro Arg Val Val Thr Asn Leu Ile Asp Gly Val Asn Arg Thr Gln Asp  
 565 570 575  
 Asp Met His Val Trp Leu Ala Pro Phe Thr Arg Gly Arg Ser His Ser  
 580 585 590  
 Ile Thr Ile Asp Phe Thr His Pro Cys His Val Ala Leu Ile Arg Ile  
 595 600 605  
 Trp Asn Tyr Asn Lys Ser Arg Ile His Ser Phe Arg Gly Val Lys Asp  
 610 615 620  
 Ile Thr Met Leu Leu Asp Thr Gln Cys Ile Phe Glu Gly Glu Ile Ala  
 625 630 635 640  
 Lys Ala Ser Gly Thr Leu Ala Gly Ala Pro Glu His Phe Gly Asp Thr  
 645 650 655  
 Ile Leu Phe Thr Thr Asp Asp Asp Ile Leu Glu Ala Ile Phe Tyr Ser  
 660 665 670  
 Asp Glu Met Phe Asp Leu Asp Val Gly Ser Leu Asp Ser Leu Gln Asp  
 675 680 685  
 Glu Glu Ala Met Arg Arg Pro Ser Thr Ala Asp Gly Glu Gly Asp Glu  
 690 695 700  
 Arg Pro Phe Thr Gln Ala Gly Leu Gly Ala Asp Glu Arg Ile Pro Glu  
 705 710 715 720  
 Leu Glu Leu Pro Ser Ser Ser Pro Val Pro Gln Val Thr Thr Pro Glu  
 725 730 735  
 Pro Gly Ile Tyr His Gly Ile Cys Leu Gln Leu Asn Phe Thr Ala Ser  
 740 745 750  
 Trp Gly Asp Leu His Tyr Leu Gly Leu Thr Gly Leu Glu Val Val Gly  
 755 760 765  
 Lys Glu Gly Gln Ala Leu Pro Ile His Leu His Gln Ile Ser Ala Ser  
 770 775 780  
 Pro Arg Asp Leu Asn Glu Leu Pro Glu Tyr Ser Asp Asp Ser Arg Thr  
 785 790 795 800  
 Leu Asp Lys Leu Ile Asp Gly Thr Asn Ile Thr Met Glu Asp Glu His  
 805 810 815  
 Met Trp Leu Ile Pro Phe Ser Pro Gly Leu Asp His Val Val Thr Ile  
 820 825 830

Arg Leu Asp Arg Ala Glu Ser Ile Ala Gly Leu Arg Phe Trp Asn Tyr  
 835 840 845  
 Asn Lys Ser Pro Glu Asp Thr Tyr Arg Gly Ala Lys Ile Val His Val  
 850 855 860  
 Ser Leu Asp Gly Leu Cys Val Ser Pro Pro Glu Gly Phe Leu Ile Arg  
 865 870 875 880  
 Lys Gly Pro Gly Asn Cys His Phe Asp Phe Ala Gln Glu Ile Leu Phe  
 885 890 895  
 Val Asp Tyr Leu Arg Ala Gln Leu Leu Pro Gln Pro Ala Arg Arg Leu  
 900 905 910  
 Asp Met Arg Ser Leu Glu Cys Ala Ser Met Asp Tyr Glu Ala Pro Leu  
 915 920 925  
 Met Pro Cys Gly Phe Ile Phe Gln Phe Gln Leu Leu Thr Ser Trp Gly  
 930 935 940  
 Asp Pro Tyr Tyr Ile Gly Leu Thr Gly Leu Glu Leu Tyr Asp Glu Arg  
 945 950 955 960  
 Gly Glu Lys Ile Pro Leu Ser Glu Asn Asn Ile Ala Ala Phe Pro Asp  
 965 970 975  
 Ser Val Asn Ser Leu Glu Gly Val Gly Gly Asp Val Arg Thr Pro Asp  
 980 985 990  
 Lys Leu Ile Asp Gln Val Asn Asp Thr Ser Asp Gly Arg His Met Trp  
 995 1000 1005  
 Leu Ala Pro Ile Leu Pro Gly Leu Val Asn Arg Val Tyr Val Ile Phe  
 1010 1015 1020  
 Asp Leu Pro Thr Thr Val Ser Met Ile Lys Leu Trp Asn Tyr Ala Lys  
 1025 1030 1035 1040  
 Thr Pro His Arg Gly Val Lys Glu Phe Gly Leu Leu Val Asp Asp Leu  
 1045 1050 1055  
 Leu Val Tyr Asn Gly Ile Leu Ala Met Val Ser His Leu Val Gly Gly  
 1060 1065 1070  
 Ile Leu Pro Thr Cys Glu Pro Thr Val Pro Tyr His Thr Ile Leu Phe  
 1075 1080 1085  
 Thr Glu Asp Arg Asp Ile Arg His Gln Glu Lys His Thr Thr Ile Ser  
 1090 1095 1100  
 Asn Gln Ala Glu Asp Gln Asp Val Gln Met Met Asn Glu Asn Gln Thr  
 1105 1110 1115 1120  
 Ile Thr Asn Ala Lys Arg Lys Gln Ser Val Val Asp Pro Ala Leu Arg  
 1125 1130 1135  
 Pro Lys Thr Cys Ile Ser Glu Lys Glu Thr Arg Arg Arg Cys \*  
 1140 1145 1150 1151

&lt;210&gt; 1600

&lt;211&gt; 532

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1600

Met Ala Ala Thr Leu Asp Leu Lys Ser Lys Glu Glu Lys Asp Ala Glu  
 1 5 10 15  
 Leu Asp Lys Arg Ile Glu Ala Leu Arg Lys Asn Glu Ala Leu Ile  
 20 25 30  
 Arg Arg Tyr Gln Glu Ile Glu Glu Asp Arg Lys Lys Ala Glu Leu Glu  
 35 40 45  
 Gly Val Ala Val Thr Ala Pro Arg Lys Gly Arg Ser Val Glu Lys Glu  
 50 55 60  
 Asn Val Ala Val Glu Ser Glu Lys Asn Leu Gly Pro Ser Arg Arg Ser  
 65 70 75 80  
 Pro Gly Thr Pro Arg Pro Pro Gly Ala Ser Lys Gly Gly Arg Thr Pro  
 85 90 95  
 Pro Gln Gln Gly Gly Arg Ala Gly Met Gly Arg Ala Ser Arg Ser Trp  
 100 105 110

Glu Gly Ser Pro Gly Glu Gln Pro Arg Gly Gly Gly Ala Gly Gly Arg  
 115 120 125  
 Gly Arg Arg Gly Arg Gly Arg Gly Ser Pro His Leu Ser Gly Ala Gly  
 130 135 140  
 Asp Thr Ser Ile Ser Asp Arg Lys Ser Lys Glu Trp Glu Glu Arg Arg  
 145 150 155 160  
 Arg Gln Asn Ile Glu Lys Met Asn Glu Glu Met Glu Lys Ile Ala Glu  
 165 170 175  
 Tyr Glu Arg Asn Gln Arg Glu Gly Val Leu Glu Pro Asn Pro Val Arg  
 180 185 190  
 Asn Phe Leu Asp Asp Pro Arg Arg Arg Ser Gly Pro Leu Glu Glu Ser  
 195 200 205  
 Glu Arg Asp Arg Arg Glu Glu Ser Arg Arg His Gly Arg Asn Trp Gly  
 210 215 220  
 Gly Pro Asp Phe Glu Arg Val Arg Cys Gly Leu Glu His Glu Arg Gln  
 225 230 235 240  
 Gly Arg Arg Ala Gly Leu Gly Ser Ala Gly Asp Met Thr Leu Ser Met  
 245 250 255  
 Thr Gly Arg Glu Arg Ser Glu Tyr Leu Arg Trp Lys Gln Glu Arg Glu  
 260 265 270  
 Lys Ile Asp Gln Glu Arg Leu Gln Arg His Arg Lys Pro Thr Gly Gln  
 275 280 285  
 Trp Arg Arg Glu Trp Asp Ala Glu Lys Thr Asp Gly Met Phe Lys Asp  
 290 295 300  
 Gly Pro Val Pro Ala His Glu Pro Ser His Arg Tyr Asp Asp Gln Ala  
 305 310 315 320  
 Trp Ala Arg Pro Pro Lys Pro Pro Thr Phe Gly Glu Phe Leu Ser Gln  
 325 330 335  
 His Lys Ala Glu Ala Ser Ser Arg Arg Arg Arg Lys Ser Ser Arg Pro  
 340 345 350  
 Gln Ala Lys Ala Ala Pro Arg Ala Tyr Ser Asp His Asp Asp Arg Trp  
 355 360 365  
 Glu Thr Lys Glu Gly Ala Ala Ser Pro Ala Pro Glu Thr Pro Gln Pro  
 370 375 380  
 Thr Ser Pro Glu Thr Ser Pro Lys Glu Thr Pro Met Gln Pro Pro Glu  
 385 390 395 400  
 Ile Pro Ala Pro Ala His Arg Pro Pro Glu Asp Glu Gly Glu Glu Asn  
 405 410 415  
 Glu Gly Glu Glu Asp Glu Glu Trp Glu Asp Ile Ser Glu Asp Glu Glu  
 420 425 430  
 Glu Glu Glu Ile Glu Val Glu Glu Gly Asp Glu Glu Glu Pro Ala Gln  
 435 440 445  
 Asp His Gln Ala Pro Glu Ala Ala Pro Thr Gly Ile Pro Cys Ser Glu  
 450 455 460  
 Gln Ala His Gly Val Pro Phe Ser Pro Glu Glu Pro Leu Leu Glu Pro  
 465 470 475 480  
 Gln Ala Pro Gly Thr Pro Ser Ser Pro Phe Ser Pro Pro Ser Gly His  
 485 490 495  
 Gln Pro Val Ser Asp Trp Gly Glu Glu Val Glu Leu Asn Ser Pro Arg  
 500 505 510  
 Thr Thr His Leu Ala Gly Ala Leu Ser Pro Gly Glu Ala Trp Pro Phe  
 515 520 525  
 Glu Ser Val \*  
 530 531

<210> 1601  
 <211> 229  
 <212> PRT  
 <213> Homo sapiens

<400> 1601



```

Met Ala Asp Phe Asp Thr Tyr Asp Asp Arg Ala Tyr Ser Ser Phe Gly
 1           5           10           15
Gly Gly Arg Gly Ser Arg Gly Ser Ala Gly Gly His Gly Ser Arg Ser
          20           25           30
Gln Lys Glu Leu Pro Thr Glu Pro Pro Tyr Thr Ala Tyr Val Gly Asn
          35           40           45
Leu Pro Phe Asn Thr Val Gln Gly Asp Ile Asp Ala Ile Phe Lys Asp
          50           55           60
Leu Ser Ile Arg Ser Val Arg Leu Val Arg Asp Lys Asp Thr Asp Lys
          65           70           75           80
Phe Lys Gly Phe Cys Tyr Val Glu Phe Asp Glu Val Asp Ser Leu Lys
          85           90           95
Glu Ala Leu Thr Tyr Asp Gly Ala Leu Leu Gly Asp Arg Ser Leu Arg
          100          105          110
Val Asp Ile Ala Glu Gly Arg Lys Gln Asp Lys Gly Gly Phe Gly Phe
          115          120          125
Arg Lys Gly Gly Pro Asp Asp Arg Gly Phe Arg Asp Asp Phe Leu Gly
          130          135          140
Gly Arg Gly Gly Ser Arg Pro Gly Asp Arg Arg Thr Gly Pro Pro Met
          145          150          155          160
Gly Ser Arg Phe Arg Asp Gly Pro Pro Leu Arg Gly Ser Asn Met Asp
          165          170          175
Phe Arg Glu Pro Thr Glu Glu Glu Arg Ala Gln Arg Pro Arg Leu Gln
          180          185          190
Leu Lys Pro Arg Thr Val Ala Thr Pro Leu Asn Gln Val Ala Asn Pro
          195          200          205
Asn Ser Ala Ile Phe Gly Gly Ala Arg Pro Arg Glu Val Val Gln
          210          215          220
Lys Glu Gln Glu *
          225          228

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```

<210> 1602
<211> 249
<212> PRT
<213> Homo sapiens

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```

<400> 1602
Met Ala Asp Phe Asp Thr Tyr Asp Asp Arg Ala Tyr Ser Ser Phe Gly
 1           5           10           15
Gly Gly Arg Gly Ser Arg Gly Ser Ala Gly Gly His Gly Ser Arg Ser
          20           25           30
Gln Lys Glu Leu Pro Thr Glu Pro Pro Tyr Thr Ala Tyr Val Gly Asn
          35           40           45
Leu Pro Phe Asn Thr Val Gln Gly Asp Ile Asp Ala Ile Phe Lys Asp
          50           55           60
Leu Ser Ile Arg Ser Val Arg Leu Val Arg Asp Lys Asp Thr Asp Lys
          65           70           75           80
Phe Lys Gly Phe Cys Tyr Val Glu Phe Asp Glu Val Asp Ser Leu Lys
          85           90           95
Glu Ala Leu Thr Tyr Asp Gly Ala Leu Leu Gly Asp Arg Ser Leu Arg
          100          105          110
Val Asp Ile Ala Glu Gly Arg Lys Gln Asp Lys Gly Gly Phe Gly Phe
          115          120          125
Arg Lys Gly Gly Pro Asp Asp Arg Gly Met Gly Ser Ser Arg Glu Ser
          130          135          140
Arg Gly Gly Trp Asp Ser Arg Asp Asp Phe Asn Ser Gly Phe Arg Asp
          145          150          155          160
Asp Phe Leu Gly Gly Arg Gly Gly Ser Arg Pro Gly Asp Arg Arg Thr
          165          170          175
Gly Pro Pro Met Gly Ser Arg Phe Arg Asp Gly Pro Pro Leu Arg Gly
          180          185          190

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```

Ser Asn Met Asp Phe Arg Glu Pro Thr Glu Glu Glu Arg Ala Gln Arg
    195                      200                      205
Pro Arg Leu Gln Leu Lys Pro Arg Thr Val Ala Thr Pro Leu Asn Gln
    210                      215                      220
Val Ala Asn Pro Asn Ser Ala Ile Phe Gly Gly Ala Arg Pro Arg Glu
    225                      230                      235                      240
Glu Val Val Gln Lys Glu Gln Glu *
                      245                      248

```

<210> 1603  
 <211> 96  
 <212> PRT  
 <213> Homo sapiens

```

<400> 1603
Met Phe Leu Leu Leu Trp Pro Pro Arg Cys Asn Lys Leu Ala Val Tyr
  1                      5                      10                      15
Leu Asp Leu Cys Leu Ile Phe Leu Leu Arg Phe Ser Leu Arg Ile
    20                      25                      30
Arg Phe Phe Leu His Leu Ala Leu Met Ala Gln Arg Phe Pro Lys Lys
    35                      40                      45
Trp Arg Tyr Pro Arg Val Arg Pro Arg Val Arg Gly Arg Val Gly Phe
    50                      55                      60
Phe Gly Asn Leu Cys Ala Met Arg Ala Lys Trp Arg Lys Lys Arg Met
    65                      70                      75                      80
Arg Arg Leu Lys Arg Lys Arg Arg Lys Met Arg Gln Arg Ser Lys *
                      85                      90                      95

```

<210> 1604  
 <211> 350  
 <212> PRT  
 <213> Homo sapiens

```

<400> 1604
Met Ala His Gln Thr Gly Ile His Ala Thr Glu Glu Leu Lys Glu Phe
  1                      5                      10                      15
Phe Ala Lys Ala Arg Ala Gly Ser Val Arg Leu Ile Lys Val Val Ile
    20                      25                      30
Glu Asp Glu Gln Leu Val Leu Gly Ala Ser Gln Glu Pro Val Gly Arg
    35                      40                      45
Trp Asp Gln Asp Tyr Asp Arg Ala Val Leu Pro Leu Leu Asp Ala Gln
    50                      55                      60
Gln Pro Cys Tyr Leu Leu Tyr Arg Leu Asp Ser Gln Asn Ala Gln Gly
    65                      70                      75                      80
Phe Glu Trp Leu Phe Leu Ala Trp Ser Pro Asp Asn Ser Pro Val Arg
                      85                      90                      95
Leu Lys Met Leu Tyr Ala Ala Thr Arg Ala Thr Val Lys Lys Glu Phe
    100                      105                      110
Gly Gly Gly His Ile Lys Asp Glu Leu Phe Gly Thr Val Lys Asp Asp
    115                      120                      125
Leu Ser Phe Ala Gly Tyr Gln Lys His Leu Ser Ser Cys Ala Ala Pro
    130                      135                      140
Ala Pro Leu Thr Ser Ala Glu Arg Glu Leu Gln Gln Ile Arg Ile Asn
    145                      150                      155                      160
Glu Val Lys Thr Glu Ile Ser Val Glu Ser Lys His Gln Thr Leu Gln
    165                      170                      175
Gly Leu Ala Phe Pro Leu Gln Pro Glu Ala Gln Arg Ala Leu Gln Gln
    180                      185                      190

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```

Leu Lys Gln Lys Met Val Asn Tyr Ile Gln Met Lys Leu Asp Leu Glu
  195                      200                      205
Arg Glu Thr Ile Glu Leu Val His Thr Glu Pro Thr Asp Val Ala Gln
  210                      215                      220
Leu Pro Ser Arg Val Pro Arg Asp Ala Ala Arg Tyr His Phe Phe Leu
  225                      230                      235                      240
Tyr Lys His Thr His Glu Gly Asp Pro Leu Glu Ser Val Val Phe Ile
                      245                      250                      255
Tyr Ser Met Pro Gly Tyr Lys Cys Ser Ile Lys Glu Arg Met Leu Tyr
                      260                      265                      270
Ser Ser Cys Lys Ser Arg Leu Leu Asp Ser Val Glu Gln Asp Phe His
  275                      280                      285
Leu Glu Ile Ala Lys Lys Ile Glu Ile Gly Asp Gly Ala Glu Leu Thr
  290                      295                      300
Ala Glu Phe Leu Tyr Asp Glu Val His Pro Lys Gln His Ala Phe Lys
  305                      310                      315                      320
Gln Ala Phe Ala Lys Pro Lys Gly Pro Gly Gly Lys Arg Gly His Lys
                      325                      330                      335
Arg Leu Ile Arg Gly Pro Gly Glu Asn Gly Asp Asp Ser *
                      340                      345                      349

```

<210> 1605  
 <211> 597  
 <212> PRT  
 <213> Homo sapiens

```

<400> 1605
Met Val Leu Leu His Val Leu Phe Glu His Ala Val Gly Tyr Ala Leu
  1          5          10          15
Leu Ala Leu Lys Glu Val Glu Glu Ile Ser Leu Leu Gln Pro Gln Val
  20          25          30
Glu Glu Ser Val Leu Asn Leu Gly Lys Phe His Ser Ile Val Arg Leu
  35          40          45
Val Ala Phe Cys Pro Phe Ala Ser Ser Gln Val Ala Leu Glu Asn Ala
  50          55          60
Asn Ala Val Ser Glu Gly Val Val His Glu Asp Leu Arg Leu Leu Leu
  65          70          75          80
Glu Thr His Leu Pro Ser Lys Lys Lys Lys Val Leu Leu Gly Val Gly
  85          90          95
Asp Pro Lys Ile Gly Ala Ala Ile Gln Glu Glu Leu Gly Tyr Asn Cys
  100         105         110
Gln Thr Gly Gly Val Ile Ala Glu Ile Leu Arg Gly Val Arg Leu His
  115         120         125
Phe His Asn Leu Val Lys Gly Leu Thr Asp Leu Ser Ala Cys Lys Ala
  130         135         140
Gln Leu Gly Leu Gly His Ser Tyr Ser Arg Ala Lys Val Lys Phe Asn
  145         150         155         160
Val Asn Arg Val Asp Asn Met Ile Ile Gln Ser Ile Ser Leu Leu Asp
  165         170         175
Gln Leu Asp Lys Asp Ile Asn Thr Phe Ser Met Arg Val Arg Glu Trp
  180         185         190
Tyr Gly Tyr His Phe Pro Glu Leu Val Lys Ile Ile Asn Asp Asn Ala
  195         200         205
Thr Tyr Cys Arg Leu Ala Gln Phe Ile Gly Asn Arg Arg Glu Leu Asn
  210         215         220
Glu Asp Lys Leu Glu Lys Leu Glu Glu Leu Thr Met Asp Gly Ala Lys
  225         230         235         240
Ala Lys Ala Ile Leu Asp Ala Ser Arg Ser Ser Met Gly Met Asp Ile
  245         250         255
Ser Ala Ile Asp Leu Ile Asn Ile Glu Ser Phe Ser Ser Arg Val Val
  260         265         270

```

Ser Leu Ser Glu Tyr Arg Gln Ser Leu His Thr Tyr Leu Arg Ser Lys  
 275 280 285  
 Met Ser Gln Val Ala Pro Ser Leu Ser Ala Leu Ile Gly Glu Ala Val  
 290 295 300  
 Gly Ala Arg Leu Ile Ala His Ala Gly Ser Leu Thr Asn Leu Ala Lys  
 305 310 315 320  
 Tyr Pro Ala Ser Thr Val Gln Ile Leu Gly Ala Glu Lys Ala Leu Phe  
 325 330 335  
 Arg Ala Leu Lys Thr Arg Gly Asn Thr Pro Lys Tyr Gly Leu Ile Phe  
 340 345 350  
 His Ser Thr Phe Ile Gly Arg Ala Ala Ala Lys Asn Lys Gly Arg Ile  
 355 360 365  
 Ser Arg Tyr Leu Ala Asn Lys Cys Ser Ile Ala Ser Arg Ile Asp Cys  
 370 375 380  
 Phe Ser Glu Val Pro Thr Ser Val Phe Gly Glu Lys Leu Arg Glu Gln  
 385 390 395 400  
 Val Glu Glu Arg Leu Ser Phe Tyr Glu Thr Gly Glu Ile Pro Arg Lys  
 405 410 415  
 Asn Leu Asp Val Met Lys Glu Ala Met Val Gln Ala Glu Ala Glu Glu  
 420 425 430  
 Ala Ala Ala Glu Ile Thr Arg Lys Leu Glu Lys Gln Glu Lys Lys Arg  
 435 440 445  
 Leu Lys Lys Glu Lys Lys Arg Leu Ala Ala Leu Ala Leu Ala Ser Ser  
 450 455 460  
 Glu Asn Ser Ser Ser Thr Pro Glu Glu Cys Glu Glu Met Ser Glu Lys  
 465 470 475 480  
 Pro Lys Lys Lys Lys Lys Gln Lys Pro Gln Glu Val Pro Gln Glu Asn  
 485 490 495  
 Gly Met Glu Asp Pro Ser Ile Ser Phe Ser Lys Pro Lys Lys Lys Lys  
 500 505 510  
 Ser Phe Ser Lys Glu Glu Leu Met Ser Ser Asp Leu Glu Glu Thr Ala  
 515 520 525  
 Gly Ser Thr Ser Ile Pro Lys Arg Lys Lys Ser Thr Pro Lys Glu Glu  
 530 535 540  
 Thr Val Asn Asp Pro Glu Glu Ala Gly His Arg Ser Gly Ser Lys Lys  
 545 550 555 560  
 Lys Arg Lys Phe Ser Lys Glu Glu Pro Val Ser Ser Gly Pro Glu Glu  
 565 570 575  
 Ala Ala Gly Lys Ser Ser Ser Lys Lys Lys Lys Phe His Lys Ala  
 580 585 590  
 Ser Gln Glu Asp \*  
 595 596

<210> 1606  
 <211> 565  
 <212> PRT  
 <213> Homo sapiens

<400> 1606  
 Met Pro Gln Ala Ser Glu His Arg Leu Gly Arg Thr Arg Glu Pro Pro  
 1 5 10 15  
 Val Asn Ile Gln Pro Arg Val Gly Ser Lys Leu Pro Phe Ala Pro Arg  
 20 25 30  
 Ala Arg Ser Lys Glu Arg Arg Asn Pro Ala Ser Gly Pro Asn Pro Met  
 35 40 45  
 Leu Arg Pro Leu Pro Pro Arg Pro Gly Leu Pro Asp Glu Arg Leu Lys  
 50 55 60  
 Lys Leu Glu Leu Gly Arg Gly Arg Thr Ser Gly Pro Arg Pro Arg Gly  
 65 70 75 80  
 Pro Leu Arg Ala Asp His Gly Val Pro Leu Pro Gly Ser Pro Pro Pro  
 85 90 95

Thr Val Ala Leu Pro Leu Pro Ser Arg Thr Asn Leu Ala Arg Ser Lys  
 100 105 110  
 Ser Val Ser Ser Gly Asp Leu Arg Pro Met Gly Ile Ala Leu Gly Gly  
 115 120 125  
 His Arg Gly Thr Gly Glu Leu Gly Ala Ala Leu Ser Arg Leu Ala Leu  
 130 135 140  
 Arg Pro Glu Pro Pro Thr Leu Arg Arg Ser Thr Ser Leu Arg Arg Leu  
 145 150 155 160  
 Gly Gly Phe Pro Gly Pro Pro Thr Leu Phe Ser Ile Arg Thr Glu Pro  
 165 170 175  
 Pro Ala Ser His Gly Ser Phe His Met Ile Ser Ala Arg Ser Ser Glu  
 180 185 190  
 Pro Phe Tyr Ser Asp Asp Lys Met Ala His His Thr Leu Leu Gly  
 195 200 205  
 Ser Gly His Val Gly Leu Arg Asn Leu Gly Asn Thr Cys Phe Leu Asn  
 210 215 220  
 Ala Val Leu Gln Cys Leu Ser Ser Thr Arg Pro Leu Arg Asp Phe Cys  
 225 230 235 240  
 Leu Arg Arg Asp Phe Arg Gln Glu Val Pro Gly Gly Gly Arg Ala Gln  
 245 250 255  
 Glu Leu Thr Glu Ala Phe Ala Asp Val Ile Gly Ala Leu Trp His Pro  
 260 265 270  
 Asp Ser Cys Glu Ala Val Asn Pro Thr Arg Phe Arg Ala Val Phe Gln  
 275 280 285  
 Lys Tyr Val Pro Ser Phe Ser Gly Tyr Ser Gln Gln Asp Ala Gln Glu  
 290 295 300  
 Phe Leu Lys Leu Leu Met Glu Arg Leu His Leu Glu Ile Asn Arg Arg  
 305 310 315 320  
 Gly Arg Arg Ala Pro Pro Ile Leu Ala Asn Gly Pro Val Pro Ser Pro  
 325 330 335  
 Pro Arg Arg Gly Gly Ala Leu Leu Glu Glu Pro Glu Leu Ser Asp Asp  
 340 345 350  
 Asp Arg Ala Asn Leu Met Trp Lys Arg Tyr Leu Glu Arg Glu Asp Ser  
 355 360 365  
 Lys Ile Val Asp Leu Phe Val Gly Gln Leu Lys Ser Cys Leu Lys Cys  
 370 375 380  
 Gln Ala Cys Gly Tyr Arg Ser Thr Thr Phe Glu Val Phe Cys Asp Leu  
 385 390 395 400  
 Ser Leu Pro Ile Pro Lys Lys Gly Phe Ala Gly Gly Lys Val Ser Leu  
 405 410 415  
 Arg Asp Cys Phe Asn Leu Phe Thr Lys Glu Glu Glu Leu Glu Ser Glu  
 420 425 430  
 Asn Ala Pro Val Cys Asp Arg Cys Arg Gln Lys Thr Arg Ser Thr Lys  
 435 440 445  
 Lys Leu Thr Val Gln Arg Phe Pro Arg Ile Leu Val Leu His Leu Asn  
 450 455 460  
 Arg Phe Ser Ala Ser Arg Gly Ser Ile Lys Lys Ser Ser Val Gly Val  
 465 470 475 480  
 Asp Phe Pro Leu Gln Arg Leu Ser Leu Gly Asp Phe Ala Ser Asp Lys  
 485 490 495  
 Ala Gly Ser Pro Val Tyr Gln Leu Tyr Ala Leu Cys Asn His Ser Gly  
 500 505 510  
 Ser Val His Tyr Gly His Tyr Thr Ala Leu Cys Arg Cys Gln Thr Gly  
 515 520 525  
 Trp His Val Tyr Asn Asp Ser Arg Val Ser Pro Val Ser Glu Asn Gln  
 530 535 540  
 Val Ala Ser Ser Glu Gly Tyr Val Leu Phe Tyr Gln Leu Met Gln Glu  
 545 550 555 560  
 Pro Pro Arg Cys Leu  
 565

&lt;210&gt; 1607

<211> 752  
 <212> PRT  
 <213> Homo sapiens

<400> 1607  
 Met Pro Ser Val Ile Cys Glu His Thr Lys Gln Phe Gln Thr Ile Ser  
 1 5 10 15  
 Glu Glu Ser Asn Gln Gly Ser Leu Leu Thr Val Pro Gly Asp Thr Ser  
 20 25 30  
 Pro Ser Pro Lys Pro Glu Val Phe Ser Asn Val Pro Glu Arg Asp Leu  
 35 40 45  
 Ser Asn Val Ser Asn Ile His Ser Ser Phe Ala Thr Ser Pro Thr Gly  
 50 55 60  
 Ala Ser Asn Ser Lys Tyr Val Ser Ala Asp Arg Asn Leu Ile Lys Asn  
 65 70 75 80  
 Thr Ala Pro Val Asn Thr Val Met Asp Ser Pro Val His Leu Glu Pro  
 85 90 95  
 Ser Ser Gln Val Gly Val Ile Gln Asn Lys Ser Trp Glu Met Pro Val  
 100 105 110  
 Asp Arg Leu Glu Thr Leu Ser Thr Arg Asp Phe Ile Cys Pro Asn Ser  
 115 120 125  
 Asn Ile Pro Asp Gln Glu Ser Ser Leu Gln Ser Phe Cys Asn Ser Glu  
 130 135 140  
 Asn Lys Val Leu Lys Glu Asn Ala Asp Phe Leu Ser Leu Arg Gln Thr  
 145 150 155 160  
 Glu Leu Pro Gly Asn Ser Cys Ala Gln Asp Pro Ala Ser Phe Met Pro  
 165 170 175  
 Pro Gln Gln Pro Cys Ser Phe Pro Ser Gln Ser Leu Ser Asp Ala Glu  
 180 185 190  
 Ser Ile Ser Lys His Met Ser Leu Ser Tyr Val Ala Asn Gln Glu Pro  
 195 200 205  
 Gly Ile Leu Gln Gln Lys Asn Ala Val Gln Ile Ile Ser Ser Ala Leu  
 210 215 220  
 Asp Thr Asp Asn Glu Ser Thr Lys Asp Thr Glu Asn Thr Phe Val Leu  
 225 230 235 240  
 Gly Asp Val Gln Lys Thr Asp Ala Phe Val Pro Val Tyr Ser Asp Ser  
 245 250 255  
 Thr Ile Gln Glu Ala Ser Pro Asn Phe Glu Lys Ala Tyr Thr Leu Pro  
 260 265 270  
 Val Leu Pro Ser Glu Lys Asp Phe Asn Gly Ser Asp Ala Ser Thr Gln  
 275 280 285  
 Leu Asn Thr His Tyr Ala Phe Ser Lys Leu Thr Tyr Lys Ser Ser Ser  
 290 295 300  
 Gly His Glu Val Glu Asn Ser Thr Thr Asp Thr Gln Val Ile Ser His  
 305 310 315 320  
 Glu Lys Glu Asn Lys Leu Glu Ser Leu Val Leu Thr His Leu Ser Arg  
 325 330 335  
 Cys Asp Ser Asp Leu Cys Glu Met Asn Ala Gly Met Pro Lys Gly Asn  
 340 345 350  
 Leu Asn Glu Gln Asp Pro Lys His Cys Pro Glu Ser Glu Lys Cys Leu  
 355 360 365  
 Leu Ser Ile Glu Asp Glu Glu Ser Gln Gln Ser Ile Leu Ser Ser Leu  
 370 375 380  
 Glu Asn His Ser Gln Gln Ser Thr Gln Pro Glu Met His Lys Tyr Gly  
 385 390 395 400  
 Gln Leu Val Lys Val Glu Leu Glu Glu Asn Ala Glu Asp Asp Lys Thr  
 405 410 415  
 Glu Asn Gln Ile Pro Gln Arg Met Thr Arg Asn Lys Ala Asn Thr Met  
 420 425 430  
 Ala Asn Gln Ser Lys Gln Ile Leu Ala Ser Cys Thr Leu Leu Ser Glu  
 435 440 445  
 Lys Asp Ser Glu Ser Ser Ser Pro Arg Gly Arg Ile Arg Leu Thr Glu  
 450 455 460

```

Asp Asp Asp Pro Gln Ile His His Pro Arg Lys Arg Lys Val Ser Arg
465                               470                               475                               480
Val Pro Gln Pro Val Gln Val Ser Pro Ser Leu Leu Gln Ala Lys Glu
                               485                               490                               495
Lys Thr Gln Gln Ser Leu Ala Ala Ile Val Asp Ser Leu Lys Leu Asp
                               500                               505                               510
Glu Ile Gln Pro Tyr Ser Ser Glu Arg Ala Asn Pro Tyr Phe Glu Tyr
                               515                               520                               525
Leu His Ile Arg Lys Lys Ile Glu Glu Lys Arg Lys Leu Leu Cys Ser
                               530                               535                               540
Val Ile Pro Gln Ala Pro Gln Tyr Tyr Asp Glu Tyr Val Thr Phe Asn
545                               550                               555                               560
Gly Ser Tyr Leu Leu Asp Gly Asn Pro Leu Ser Lys Ile Cys Ile Pro
                               565                               570                               575
Thr Ile Thr Pro Pro Pro Ser Leu Ser Asp Pro Leu Lys Glu Leu Phe
                               580                               585                               590
Arg Gln Gln Glu Val Val Arg Met Lys Leu Arg Leu Gln His Ser Ile
                               595                               600                               605
Glu Arg Glu Lys Leu Ile Val Ser Asn Glu Gln Glu Val Leu Arg Val
610                               615                               620
His Tyr Arg Ala Ala Arg Thr Leu Ala Asn Gln Thr Leu Pro Phe Ser
625                               630                               635                               640
Ala Cys Thr Val Leu Leu Asp Ala Glu Val Tyr Asn Val Pro Leu Asp
                               645                               650                               655
Ser Gln Ser Asp Asp Ser Lys Thr Ser Val Arg Asp Arg Phe Asn Ala
660                               665                               670
Arg Gln Phe Met Ser Trp Leu Gln Asp Val Asp Asp Lys Phe Asp Lys
675                               680                               685
Leu Lys Thr Cys Leu Leu Met Arg Gln Gln His Glu Ala Ala Ala Leu
690                               695                               700
Asn Ala Val Gln Arg Leu Glu Trp Gln Leu Lys Leu Gln Glu Leu Asp
705                               710                               715                               720
Pro Ala Thr Tyr Lys Ser Ile Ser Ile Tyr Glu Ile Gln Glu Phe Tyr
                               725                               730                               735
Val Pro Leu Val Asp Val Asn Asp Asp Phe Glu Leu Thr Pro Ile *
                               740                               745                               750 751

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&lt;210&gt; 1608

&lt;211&gt; 254

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1608

```

Met Thr Gln Gly Thr Glu Asp Leu Lys Gly Pro Gly Gln Arg Cys Glu
1                               5                               10                               15
Asn Glu Pro Leu Leu Asp Pro Val Gly Pro Glu Pro Leu Gly Pro Glu
                               20                               25                               30
Ser Gln Ser Gly Lys Gly Asp Met Val Glu Met Ala Thr Arg Phe Gly
35                               40                               45
Ser Thr Leu Gln Leu Asp Leu Glu Lys Gly Lys Glu Ser Leu Leu Glu
50                               55                               60
Lys Arg Leu Val Ala Glu Glu Glu Asp Glu Glu Glu Val Glu Glu
65                               70                               75                               80
Asp Gly Pro Ser Ser Cys Ser Glu Asp Asp Tyr Ser Glu Leu Leu Gln
                               85                               90                               95
Glu Ile Thr Asp Asn Leu Thr Lys Lys Glu Ile Gln Ile Glu Lys Ile
100                               105                               110
His Leu Asp Thr Ser Ser Phe Val Glu Glu Leu Pro Gly Glu Lys Asp
115                               120                               125
Leu Ala His Val Val Glu Ile Tyr Asp Phe Glu Pro Ala Leu Lys Thr
130                               135                               140

```

Glu Asp Leu Leu Ala Thr Phe Ser Glu Phe Gln Glu Lys Gly Phe Arg  
 145 150 155 160  
 Ile Gln Trp Val Asp Asp Thr His Ala Leu Gly Ile Phe Pro Cys Leu  
 165 170 175  
 Ala Ser Ala Ala Glu Ala Leu Thr Arg Glu Phe Ser Val Leu Lys Ile  
 180 185 190  
 Arg Pro Leu Thr Gln Gly Thr Lys Gln Ser Lys Leu Lys Ala Leu Gln  
 195 200 205  
 Arg Pro Lys Leu Leu Arg Leu Val Lys Glu Arg Pro Gln Thr Asn Ala  
 210 215 220  
 Thr Val Ala Arg Arg Leu Val Ala Arg Ala Leu Gly Leu Gln His Lys  
 225 230 235 240  
 Lys Lys Glu Arg Pro Ala Val Arg Gly Ser Val Pro Pro \*  
 245 250 253

&lt;210&gt; 1609

&lt;211&gt; 623

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1609

Met Gly Pro Leu Gln Phe Arg Asp Val Ala Ile Glu Phe Ser Leu Glu  
 1 5 10 15  
 Glu Trp His Cys Leu Asp Thr Ala Gln Arg Asn Leu Tyr Arg Asn Val  
 20 25 30  
 Met Leu Glu Asn Tyr Ser Asn Leu Val Phe Leu Gly Ile Val Val Ser  
 35 40 45  
 Lys Pro Asp Leu Ile Ala His Leu Glu Gln Gly Lys Lys Pro Leu Thr  
 50 55 60  
 Met Lys Arg His Glu Met Val Ala Asn Pro Ser Gly Pro Val Ile Cys  
 65 70 75 80  
 Ser His Phe Ala Gln Asp Leu Trp Pro Glu Gln Asn Ile Lys Asp Ser  
 85 90 95  
 Phe Gln Lys Val Ile Leu Arg Arg Tyr Glu Lys Arg Gly His Gly Asn  
 100 105 110  
 Leu Gln Leu Ile Lys Arg Cys Glu Ser Val Asp Glu Cys Lys Val His  
 115 120 125  
 Thr Gly Gly Tyr Asn Gly Leu Asn Gln Cys Ser Thr Thr Thr Gln Ser  
 130 135 140  
 Lys Val Phe Gln Cys Asp Lys Tyr Gly Lys Val Phe His Lys Phe Ser  
 145 150 155 160  
 Asn Ser Asn Arg His Asn Ile Arg His Thr Glu Lys Lys Pro Phe Lys  
 165 170 175  
 Cys Ile Glu Cys Gly Lys Ala Phe Asn Gln Phe Ser Thr Leu Ile Thr  
 180 185 190  
 His Lys Lys Ile His Thr Gly Glu Lys Pro Tyr Ile Cys Glu Glu Cys  
 195 200 205  
 Gly Lys Ala Phe Lys Tyr Ser Ser Ala Leu Asn Thr His Lys Arg Ile  
 210 215 220  
 His Thr Gly Glu Lys Pro Tyr Lys Cys Asp Lys Cys Asp Lys Ala Phe  
 225 230 235 240  
 Ile Ala Ser Ser Thr Leu Ser Lys His Glu Ile Ile His Thr Gly Lys  
 245 250 255  
 Lys Pro Tyr Lys Cys Glu Glu Cys Gly Lys Ala Phe Asn Gln Ser Ser  
 260 265 270  
 Thr Leu Thr Lys His Lys Lys Ile His Thr Gly Glu Lys Pro Tyr Lys  
 275 280 285  
 Cys Glu Glu Cys Gly Lys Ala Phe Asn Gln Ser Ser Thr Leu Thr Lys  
 290 295 300  
 His Lys Lys Ile His Thr Gly Glu Lys Pro Tyr Val Cys Glu Glu Cys  
 305 310 315 320



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<210> 1610
<211> 395
<212> PRT
<213> Homo sapiens
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3462

Leu Glu Ala Thr Leu Gly Arg Leu Arg Arg Ala Thr Glu Tyr Ala Pro  
 130 135 140  
 Lys Lys Arg Ile Glu Pro Leu Ser Pro Glu Leu Val Ala Ala Ala Ser  
 145 150 155 160  
 Ala Val Ala Asp Ser Leu Pro Phe Asp Lys Gln Thr Thr Lys Ser Glu  
 165 170 175  
 Leu Leu Ser Gln Leu Gln Gln His Glu Glu Glu Ser Arg Ala Gln Arg  
 180 185 190  
 Asp Ala Lys Arg Pro Lys Ile Ser Phe Ser Asn Ile Ile Ser Asp Met  
 195 200 205  
 Lys Val Ala Arg Ser Ala Thr Ala Arg Val Arg Ser Arg Pro Glu Leu  
 210 215 220  
 Arg Ile Gln Phe Asp Glu Gly Tyr Asp Asn Tyr Pro Gly Gln Glu Lys  
 225 230 235 240  
 Thr Asp Asp Leu Lys Lys Arg Lys Asn Ile Phe Thr Gly Lys Arg Leu  
 245 250 255  
 Asn Ile Phe Asp Met Met Ala Val Thr Lys Glu Ala Pro Glu Thr Asp  
 260 265 270  
 Thr Ser Pro Ser Leu Trp Asp Val Glu Phe Ala Lys Gln Leu Ala Thr  
 275 280 285  
 Val Asn Glu Gln Pro Leu Gln Asn Gly Phe Glu Glu Leu Ile Gln Trp  
 290 295 300  
 Thr Lys Glu Gly Lys Leu Trp Glu Phe Pro Ile Asn Asn Glu Ala Gly  
 305 310 315 320  
 Phe Asp Asp Asp Gly Ser Glu Phe His Glu His Ile Phe Leu Glu Lys  
 325 330 335  
 His Leu Glu Ser Phe Pro Lys Gln Gly Pro Ile Arg His Phe Met Glu  
 340 345 350  
 Leu Val Thr Cys Gly Leu Ser Lys Asn Pro Tyr Leu Ser Val Lys Gln  
 355 360 365  
 Lys Val Glu His Ile Glu Trp Phe Arg Asn Tyr Phe Asn Glu Lys Lys  
 370 375 380  
 Asp Ile Leu Lys Glu Ser Asn Ile Gln Phe Asn  
 385 390 395

<210> 1611  
 <211> 387  
 <212> PRT  
 <213> Homo sapiens

<400> 1611  
 Met Phe Pro Arg Val Ser Thr Phe Leu Pro Leu Arg Pro Leu Ser Arg  
 1 5 10 15  
 His Pro Leu Ser Ser Gly Ser Pro Glu Thr Ser Ala Ala Ala Ile Met  
 20 25 30  
 Leu Leu Thr Val Arg His Gly Thr Val Arg Thr Lys Asn Asn Ile Gln  
 35 40 45  
 Arg Tyr Phe Gly Thr Asn Ser Val Ile Cys Ser Lys Lys Asp Lys Gln  
 50 55 60  
 Ser Val Arg Thr Glu Glu Thr Ser Lys Glu Thr Ser Glu Ser Gln Asp  
 65 70 75 80  
 Ser Glu Lys Glu Asn Thr Lys Lys Asp Leu Leu Gly Ile Ile Lys Gly  
 85 90 95  
 Met Lys Val Glu Leu Ser Thr Val Asn Val Arg Thr Thr Lys Pro Pro  
 100 105 110  
 Lys Arg Arg Pro Leu Lys Ser Leu Glu Ala Thr Leu Gly Arg Leu Arg  
 115 120 125  
 Arg Ala Thr Glu Tyr Ala Pro Lys Lys Arg Ile Glu Pro Leu Ser Pro  
 130 135 140  
 Glu Leu Val Ala Ala Ala Ser Ala Val Ala Asp Ser Leu Pro Phe Asp  
 145 150 155 160

Lys Gln Thr Thr Lys Ser Glu Leu Leu Ser Gln Leu Gln Gln His Glu  
 165 170 175  
 Glu Glu Ser Arg Ala Gln Arg Asp Ala Lys Arg Pro Lys Ile Ser Phe  
 180 185 190  
 Ser Asn Ile Ile Ser Asp Met Lys Val Ala Arg Ser Ala Thr Ala Arg  
 195 200 205  
 Val Arg Ser Arg Pro Glu Leu Arg Ile Gln Phe Asp Glu Gly Tyr Asp  
 210 215 220  
 Asn Tyr Pro Gly Gln Glu Lys Thr Asp Asp Leu Lys Lys Arg Lys Asn  
 225 230 235 240  
 Ile Phe Thr Gly Lys Arg Leu Asn Ile Phe Asp Met Met Ala Val Thr  
 245 250 255  
 Lys Glu Ala Pro Glu Thr Asp Thr Ser Pro Ser Leu Trp Asp Val Glu  
 260 265 270  
 Phe Ala Lys Gln Leu Ala Thr Val Asn Glu Gln Pro Leu Gln Asn Gly  
 275 280 285  
 Phe Glu Glu Leu Ile Gln Trp Thr Lys Glu Gly Lys Leu Trp Glu Phe  
 290 295 300  
 Pro Ile Asn Asn Glu Ala Gly Phe Asp Asp Asp Gly Ser Glu Phe His  
 305 310 315 320  
 Glu His Ile Phe Leu Glu Lys His Leu Glu Ser Phe Pro Lys Gln Gly  
 325 330 335  
 Pro Ile Arg His Phe Met Glu Leu Val Thr Cys Gly Leu Ser Lys Asn  
 340 345 350  
 Pro Tyr Leu Ser Val Lys Gln Lys Val Glu His Ile Glu Trp Phe Arg  
 355 360 365  
 Asn Tyr Phe Asn Glu Lys Lys Asp Ile Leu Lys Glu Ser Asn Ile Gln  
 370 375 380  
 Phe Asn \*  
 385 386

<210> 1612  
 <211> 671  
 <212> PRT  
 <213> Homo sapiens

<400> 1612  
 Met Ser His Leu Pro Met Lys Leu Leu Arg Lys Lys Ile Glu Lys Arg  
 1 5 10 15  
 Asn Leu Lys Leu Arg Gln Arg Asn Leu Lys Phe Gln Gly Ala Ser Asn  
 20 25 30  
 Leu Thr Leu Ser Glu Thr Gln Asn Gly Asp Val Ser Glu Glu Thr Met  
 35 40 45  
 Gly Ser Arg Lys Val Lys Lys Ser Lys Gln Lys Pro Met Asn Val Gly  
 50 55 60  
 Leu Ser Glu Thr Gln Asn Gly Gly Met Ser Gln Glu Ala Val Gly Asn  
 65 70 75 80  
 Ile Lys Val Thr Lys Ser Pro Gln Lys Ser Thr Val Leu Ser Asn Gly  
 85 90 95  
 Glu Ala Ala Met Gln Ser Ser Asn Ser Glu Ser Lys Lys Lys Lys  
 100 105 110  
 Lys Lys Arg Lys Met Val Asn Asp Ala Glu Pro Asp Thr Lys Lys Ala  
 115 120 125  
 Lys Thr Glu Asn Lys Gly Lys Ser Glu Glu Glu Ser Ala Glu Thr Thr  
 130 135 140  
 Lys Glu Thr Glu Asn Asn Val Glu Lys Pro Asp Asn Asp Glu Asp Glu  
 145 150 155 160  
 Ser Glu Val Pro Ser Leu Pro Leu Gly Leu Thr Gly Ala Phe Glu Asp  
 165 170 175  
 Thr Ser Phe Ala Ser Leu Cys Asn Leu Val Asn Glu Asn Thr Leu Lys  
 180 185 190

Ala	Ile	Lys	Glu	Met	Gly	Phe	Thr	Asn	Met	Thr	Glu	Ile	Gln	His	Lys	195	200	205
Ser	Ile	Arg	Pro	Leu	Leu	Glu	Gly	Arg	Asp	Leu	Leu	Ala	Ala	Ala	Lys	210	215	220
Thr	Gly	Ser	Gly	Lys	Thr	Leu	Ala	Phe	Leu	Ile	Pro	Ala	Val	Glu	Leu	225	230	235
Ile	Val	Lys	Leu	Arg	Phe	Met	Pro	Arg	Asn	Gly	Thr	Gly	Val	Leu	Ile	245	250	255
Leu	Ser	Pro	Thr	Arg	Glu	Leu	Ala	Met	Gln	Thr	Phe	Gly	Val	Leu	Lys	260	265	270
Glu	Leu	Met	Thr	His	His	Val	His	Thr	Tyr	Gly	Leu	Ile	Met	Gly	Gly	275	280	285
Ser	Asn	Arg	Ser	Ala	Glu	Ala	Gln	Lys	Leu	Gly	Asn	Gly	Ile	Asn	Ile	290	295	300
Ile	Val	Ala	Thr	Pro	Gly	Arg	Leu	Leu	Asp	His	Met	Gln	Asn	Thr	Pro	305	310	315
Gly	Phe	Met	Tyr	Lys	Asn	Leu	Gln	Cys	Leu	Val	Ile	Asp	Glu	Ala	Asp	325	330	335
Arg	Ile	Leu	Asp	Val	Gly	Phe	Glu	Glu	Glu	Leu	Lys	Gln	Ile	Ile	Lys	340	345	350
Leu	Leu	Pro	Thr	Arg	Arg	Gln	Thr	Met	Leu	Phe	Ser	Ala	Thr	Gln	Thr	355	360	365
Arg	Lys	Val	Glu	Asp	Leu	Ala	Arg	Ile	Ser	Leu	Lys	Lys	Glu	Pro	Leu	370	375	380
Tyr	Val	Gly	Val	Asp	Asp	Asp	Lys	Ala	Asn	Ala	Thr	Val	Asp	Gly	Leu	385	390	395
Glu	Gln	Gly	Tyr	Val	Val	Cys	Pro	Ser	Glu	Lys	Arg	Phe	Leu	Leu	Leu	405	410	415
Phe	Thr	Phe	Leu	Lys	Lys	Asn	Arg	Lys	Lys	Lys	Leu	Met	Val	Phe	Phe	420	425	430
Ser	Ser	Cys	Met	Ser	Val	Lys	Tyr	His	Tyr	Glu	Leu	Leu	Asn	Tyr	Ile	435	440	445
Asp	Leu	Pro	Val	Leu	Ala	Ile	His	Gly	Lys	Gln	Lys	Gln	Asn	Lys	Arg	450	455	460
Thr	Thr	Thr	Phe	Phe	Gln	Phe	Cys	Asn	Ala	Asp	Ser	Gly	Thr	Leu	Leu	465	470	475
Cys	Thr	Asp	Val	Ala	Ala	Arg	Gly	Leu	Asp	Ile	Pro	Glu	Val	Asp	Trp	485	490	495
Ile	Val	Gln	Tyr	Asp	Pro	Pro	Asp	Asp	Pro	Lys	Glu	Tyr	Ile	His	Arg	500	505	510
Val	Gly	Arg	Thr	Ala	Arg	Gly	Leu	Asn	Gly	Arg	Gly	His	Ala	Leu	Leu	515	520	525
Ile	Leu	Arg	Pro	Glu	Glu	Leu	Gly	Phe	Leu	Arg	Tyr	Leu	Lys	Gln	Ser	530	535	540
Lys	Val	Pro	Leu	Ser	Glu	Phe	Asp	Phe	Ser	Trp	Ser	Lys	Ile	Ser	Asp	545	550	555
Ile	Gln	Ser	Gln	Leu	Glu	Lys	Leu	Ile	Glu	Lys	Asn	Tyr	Phe	Leu	His	565	570	575
Lys	Ser	Ala	Gln	Glu	Ala	Tyr	Lys	Ser	Tyr	Ile	Arg	Ala	Tyr	Asp	Ser	580	585	590
His	Ser	Leu	Lys	Gln	Ile	Phe	Asn	Val	Asn	Asn	Leu	Asn	Leu	Pro	Gln	595	600	605
Val	Ala	Leu	Ser	Phe	Gly	Phe	Lys	Val	Pro	Pro	Phe	Val	Asp	Leu	Asn	610	615	620
Val	Asn	Ser	Asn	Glu	Gly	Lys	Gln	Lys	Lys	Arg	Gly	Gly	Gly	Gly	Gly	625	630	635
Phe	Gly	Tyr	Gln	Lys	Thr	Lys	Lys	Val	Glu	Lys	Ser	Lys	Ile	Phe	Lys	645	650	655
His	Ile	Ser	Lys	Lys	Ser	Ser	Asp	Ser	Arg	Gln	Phe	Ser	His	*		660	665	670

<211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 1613  
 Met Ser His His Pro His Ser Leu Arg Asn Ser Cys Leu Ile Arg Met  
 1 5 10 15  
 Asp Leu Leu Tyr Trp Gln Phe Thr Ile Tyr Thr Ile Thr Phe Cys Phe  
 20 25 30  
 Ser His Leu Ser Gly Arg Leu Thr Leu Ser Ala Gln His Ile Ser His  
 35 40 45  
 Arg Pro Cys Leu Leu Ser Tyr Ser Leu Leu Phe Trp Lys Val His His  
 50 55 60  
 Leu Phe Leu Glu Gly Phe Pro Cys Ser Pro Arg Leu Asp Glu Met Ser  
 65 70 75 80  
 Phe His Gln Phe Pro Gln His Pro Val His Val Ser Val Val His Leu  
 85 90 95  
 Pro Ile Val Tyr Lys Gly Ser Met Thr Gln Val Ser Pro His \*  
 100 105 110

<210> 1614  
 <211> 309  
 <212> PRT  
 <213> Homo sapiens

<400> 1614  
 Met Ala Gly Lys Lys Asn Val Leu Ser Ser Leu Ala Val Tyr Ala Glu  
 1 5 10 15  
 Asp Ser Glu Pro Glu Ser Asp Gly Glu Ala Gly Ile Glu Ala Val Gly  
 20 25 30  
 Ser Ala Ala Glu Glu Lys Gly Gly Leu Val Ser Asp Ala Tyr Gly Glu  
 35 40 45  
 Asp Asp Phe Ser Arg Leu Gly Gly Asp Glu Asp Gly Tyr Glu Glu Glu  
 50 55 60  
 Glu Asp Glu Asn Ser Arg Gln Ser Glu Asp Asp Ser Glu Thr Glu  
 65 70 75 80  
 Lys Pro Glu Ala Asp Asp Pro Lys Asp Asn Thr Glu Ala Glu Lys Arg  
 85 90 95  
 Asp Pro Gln Glu Leu Val Ala Ser Phe Ser Glu Arg Val Arg Asn Met  
 100 105 110  
 Ser Pro Asp Glu Ile Lys Ile Pro Pro Glu Pro Pro Gly Arg Cys Ser  
 115 120 125  
 Asn His Leu Gln Asp Lys Ile Gln Lys Leu Tyr Glu Arg Lys Ile Lys  
 130 135 140  
 Glu Gly Met Asp Met Asn Tyr Ile Ile Gln Arg Lys Lys Glu Phe Arg  
 145 150 155 160  
 Asn Pro Ser Ile Tyr Glu Lys Leu Ile Gln Phe Cys Ala Ile Asp Glu  
 165 170 175  
 Leu Gly Thr Asn Tyr Pro Lys Asp Met Phe Asp Pro His Gly Trp Ser  
 180 185 190  
 Glu Asp Ser Tyr Tyr Glu Ala Leu Ala Lys Ala Gln Lys Ile Glu Met  
 195 200 205  
 Asp Lys Leu Glu Lys Ala Lys Lys Glu Arg Thr Lys Ile Glu Phe Val  
 210 215 220  
 Thr Gly Thr Lys Lys Gly Thr Thr Thr Asn Ala Thr Ser Thr Thr Thr  
 225 230 235 240  
 Thr Thr Ala Ser Thr Ala Val Ala Asp Ala Gln Lys Arg Lys Ser Lys  
 245 250 255  
 Trp Asp Ser Ala Ile Pro Val Thr Thr Ile Ala Gln Pro Thr Ile Leu  
 260 265 270

Thr Thr Thr Ala Thr Leu Pro Ala Val Val Thr Val Thr Thr Ser Ala  
           275                                  280                                  285  
 Ser Gly Ser Lys Thr Thr Val Ile Ser Ala Val Gly Thr Ile Val Lys  
           290                                  295                                  300  
 Lys Ala Lys Gln \*  
           305                                  308

<210> 1615  
 <211> 367  
 <212> PRT  
 <213> Homo sapiens

<400> 1615  
 Met Ala Gly Lys Lys Asn Val Leu Ser Ser Leu Ala Val Tyr Ala Glu  
   1                                  5                                  10                                  15  
 Asp Ser Glu Pro Glu Ser Asp Gly Glu Ala Gly Ile Glu Ala Val Gly  
           20                                  25                                  30  
 Ser Ala Ala Glu Glu Lys Gly Gly Leu Val Ser Asp Ala Tyr Gly Glu  
           35                                  40                                  45  
 Asp Asp Phe Ser Arg Leu Gly Gly Asp Glu Asp Gly Tyr Glu Glu Glu  
           50                                  55                                  60  
 Glu Asp Glu Asn Ser Arg Gln Ser Arg Arg Cys Phe Thr Met Phe Pro  
           65                                  70                                  75                                  80  
 Ser Leu Val Ser Asn Phe Trp Pro Gln Ala Ile Pro Leu Pro His Pro  
                                   85                                  90                                  95  
 Pro Lys Val Leu Gly Leu Gln Glu Asp Asp Asp Ser Glu Thr Glu Lys  
           100                                  105                                  110  
 Pro Glu Ala Asp Asp Pro Lys Asp Asn Thr Glu Ala Glu Lys Arg Asp  
           115                                  120                                  125  
 Pro Gln Glu Leu Val Ala Ser Phe Ser Glu Arg Val Arg Asn Met Ser  
           130                                  135                                  140  
 Pro Asp Glu Ile Lys Ile Pro Pro Glu Pro Pro Gly Arg Cys Ser Asn  
           145                                  150                                  155                                  160  
 His Leu Gln Asp Lys Ile Gln Lys Leu Tyr Glu Arg Lys Ile Lys Glu  
           165                                  170                                  175  
 Gly Met Asp Met Asn Tyr Ile Ile Gln Arg Lys Lys Glu Phe Arg Asn  
           180                                  185                                  190  
 Pro Ser Ile Tyr Glu Lys Leu Ile Gln Phe Cys Ala Ile Asp Glu Leu  
           195                                  200                                  205  
 Gly Thr Asn Tyr Pro Lys Asp Met Phe Asp Pro His Gly Trp Ser Glu  
           210                                  215                                  220  
 Asp Ser Tyr Tyr Glu Ala Leu Ala Lys Ala Gln Lys Ile Glu Met Asp  
           225                                  230                                  235                                  240  
 Lys Leu Glu Lys Ala Lys Lys Glu Arg Thr Lys Ala Cys Cys Arg Asp  
           245                                  250                                  255  
 Val Ser Ala Ala Pro Gly Glu Pro Ser Cys Pro Ser Pro Val Arg Ala  
           260                                  265                                  270  
 Gly Thr Ala Ser Ser Trp Ile Glu Phe Val Thr Gly Thr Lys Lys Gly  
           275                                  280                                  285  
 Thr Thr Thr Asn Ala Thr Ser Thr Thr Thr Thr Thr Ala Ser Thr Ala  
           290                                  295                                  300  
 Val Ala Asp Ala Gln Lys Arg Lys Ser Lys Trp Asp Ser Ala Ile Pro  
           305                                  310                                  315                                  320  
 Val Thr Thr Ile Ala Gln Pro Thr Ile Leu Thr Thr Thr Ala Thr Leu  
           325                                  330                                  335  
 Pro Ala Val Val Thr Val Thr Thr Ser Ala Ser Gly Ser Lys Thr Thr  
           340                                  345                                  350  
 Val Ile Ser Ala Val Gly Thr Ile Val Lys Lys Ala Lys Gln \*  
           355                                  360                                  365 366

<210> 1616  
 <211> 359  
 <212> PRT  
 <213> Homo sapiens

<400> 1616  
 Met Ala Glu Arg Gln Glu Glu Gln Arg Gly Ser Pro Pro Leu Arg Ala  
 1 5 10 15  
 Glu Gly Lys Ala Asp Ala Glu Val Lys Leu Ile Leu Tyr His Trp Thr  
 20 25 30  
 His Ser Phe Ser Ser Gln Lys Val Arg Leu Val Ile Ala Glu Lys Ala  
 35 40 45  
 Leu Lys Cys Glu Glu His Asp Val Ser Leu Pro Leu Ser Glu His Asn  
 50 55 60  
 Glu Pro Trp Phe Met Arg Leu Asn Ser Thr Gly Glu Val Pro Val Leu  
 65 70 75 80  
 Ile His Gly Glu Asn Ile Ile Cys Glu Ala Thr Gln Ile Ile Asp Tyr  
 85 90 95  
 Leu Glu Gln Thr Phe Leu Asp Glu Arg Thr Pro Arg Leu Met Pro Asp  
 100 105 110  
 Lys Glu Ser Met Tyr Tyr Pro Arg Val Gln His Tyr Arg Glu Leu Leu  
 115 120 125  
 Asp Ser Leu Pro Met Asp Ala Tyr Thr His Gly Cys Ile Leu His Pro  
 130 135 140  
 Glu Leu Thr Val Asp Ser Met Ile Pro Ala Tyr Ala Thr Thr Arg Ile  
 145 150 155 160  
 Arg Ser Gln Ile Gly Asn Thr Glu Ser Glu Leu Lys Lys Leu Ala Glu  
 165 170 175  
 Glu Asn Pro Asp Leu Gln Glu Ala Tyr Ile Ala Lys Gln Lys Arg Leu  
 180 185 190  
 Lys Ser Lys Leu Leu Asp His Asp Asn Val Lys Tyr Leu Lys Lys Ile  
 195 200 205  
 Leu Asp Glu Leu Glu Lys Val Leu Asp Gln Val Glu Thr Glu Leu Gln  
 210 215 220  
 Arg Arg Asn Glu Glu Thr Pro Glu Glu Gly Gln Gln Pro Trp Leu Cys  
 225 230 235 240  
 Gly Glu Ser Phe Thr Leu Ala Asp Val Ser Leu Ala Val Thr Leu His  
 245 250 255  
 Arg Leu Lys Phe Leu Gly Phe Ala Arg Arg Asn Trp Gly Asn Gly Lys  
 260 265 270  
 Arg Pro Asn Leu Glu Thr Tyr Tyr Glu Arg Val Leu Lys Arg Lys Thr  
 275 280 285  
 Phe Asn Lys Val Leu Gly His Val Asn Asn Ile Leu Ile Ser Ala Val  
 290 295 300  
 Leu Pro Thr Ala Phe Arg Val Ala Lys Lys Arg Ala Pro Lys Val Leu  
 305 310 315 320  
 Gly Thr Thr Leu Val Val Gly Leu Leu Ala Gly Val Gly Tyr Phe Ala  
 325 330 335  
 Phe Met Leu Phe Arg Lys Arg Leu Gly Ser Met Ile Leu Ala Leu Arg  
 340 345 350  
 Pro Arg Pro Asn Tyr Phe \*  
 355 358

<210> 1617  
 <211> 575  
 <212> PRT  
 <213> Homo sapiens

<400> 1617

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Met Cys Pro Arg Ala Ala Arg Ala Pro Ala Thr Leu Leu Leu Ala Leu
 1          5          10          15
Gly Ala Val Leu Trp Pro Ala Ala Gly Ala Trp Glu Leu Thr Ile Leu
 20          25          30
His Thr Asn Asp Val His Ser Arg Leu Glu Gln Thr Ser Glu Asp Ser
 35          40          45
Ser Lys Cys Val Asn Ala Ser Arg Cys Met Gly Gly Val Ala Arg Leu
 50          55          60
Phe Thr Lys Val Gln Gln Ile Arg Arg Ala Glu Pro Asn Val Leu Leu
 65          70          75          80
Leu Asp Ala Gly Asp Gln Tyr Gln Gly Thr Ile Trp Phe Thr Val Tyr
 85          90          95
Lys Gly Ala Glu Val Ala His Phe Met Asn Ala Leu Arg Tyr Asp Ala
 100          105          110
Met Ala Leu Gly Asn His Glu Phe Asp Asn Gly Val Glu Gly Leu Ile
 115          120          125
Glu Pro Leu Leu Lys Glu Ala Lys Phe Pro Ile Leu Ser Ala Asn Ile
 130          135          140
Lys Ala Lys Gly Pro Leu Ala Ser Gln Ile Ser Gly Leu Tyr Leu Pro
 145          150          155          160
Tyr Lys Val Leu Pro Val Gly Asp Glu Val Val Gly Ile Val Gly Tyr
 165          170          175
Thr Ser Lys Glu Thr Pro Phe Leu Ser Asn Pro Gly Thr Asn Leu Val
 180          185          190
Phe Glu Asp Glu Ile Thr Ala Leu Gln Pro Glu Val Asp Lys Leu Lys
 195          200          205
Thr Leu Asn Val Asn Lys Ile Ile Ala Leu Gly His Ser Gly Phe Glu
 210          215          220
Met Asp Lys Leu Ile Ala Gln Lys Val Arg Gly Val Asp Val Val Val
 225          230          235          240
Gly Gly His Ser Asn Thr Phe Leu Tyr Thr Gly Asn Pro Pro Ser Lys
 245          250          255
Glu Val Pro Ala Gly Lys Tyr Pro Phe Ile Val Thr Ser Asp Asp Gly
 260          265          270
Arg Lys Val Pro Val Val Gln Ala Tyr Ala Phe Gly Lys Tyr Leu Gly
 275          280          285
Tyr Leu Lys Ile Glu Phe Asp Glu Arg Gly Asn Val Ile Ser Ser His
 290          295          300
Gly Asn Pro Ile Leu Leu Asn Ser Ser Ile Pro Glu Asp Pro Ser Ile
 305          310          315          320
Lys Ala Asp Ile Asn Lys Trp Arg Ile Lys Leu Asp Asn Tyr Ser Thr
 325          330          335
Gln Glu Leu Gly Lys Thr Ile Val Tyr Leu Asp Gly Ser Ser Gln Ser
 340          345          350
Cys Arg Phe Arg Glu Cys Asn Met Gly Asn Leu Ile Cys Asp Ala Met
 355          360          365
Ile Asn Asn Asn Leu Arg His Thr Asp Glu Met Phe Trp Asn His Val
 370          375          380
Ser Met Cys Ile Leu Asn Gly Gly Gly Ile Arg Ser Pro Ile Asp Glu
 385          390          395          400
Arg Asn Asn Gly Thr Ile Thr Trp Glu Asn Leu Ala Ala Val Leu Pro
 405          410          415
Phe Gly Gly Thr Phe Asp Leu Val Gln Leu Lys Gly Ser Thr Leu Lys
 420          425          430
Lys Ala Phe Glu His Ser Val His Arg Tyr Gly Gln Ser Thr Gly Glu
 435          440          445
Phe Leu Gln Val Gly Gly Ile His Val Val Tyr Asp Leu Ser Arg Lys
 450          455          460
Pro Gly Asp Arg Val Val Lys Leu Asp Val Leu Cys Thr Lys Cys Arg
 465          470          475          480
Val Pro Ser Tyr Asp Pro Leu Lys Met Asp Glu Val Tyr Lys Val Ile
 485          490          495
Leu Pro Asn Phe Leu Ala Asn Gly Gly Asp Gly Phe Gln Met Ile Lys
 500          505          510

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Asp	Glu	Leu	Leu	Arg	His	Asp	Ser	Gly	Asp	Gln	Asp	Ile	Asn	Val	Val
	515						520					525			
Ser	Thr	Tyr	Ile	Ser	Lys	Met	Lys	Val	Ile	Tyr	Pro	Ala	Val	Glu	Gly
	530					535					540				
Arg	Ile	Lys	Phe	Ser	Thr	Gly	Ser	His	Cys	His	Gly	Ser	Phe	Ser	Leu
545					550					555					560
Ile	Phe	Leu	Ser	Leu	Trp	Ala	Val	Ile	Phe	Val	Leu	Tyr	Gln	*	
				565					570				574		

&lt;210&gt; 1618

&lt;211&gt; 380

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1618

Met	Thr	Ser	Val	Ala	Ala	Arg	Ser	His	Met	Trp	Pro	Cys	Ser	Gly	Lys
1				5					10					15	
Thr	Gly	Glu	Gln	Glu	Gly	Ser	Leu	Ser	Thr	Leu	Phe	Ser	Arg	Leu	Tyr
			20					25					30		
Ala	Phe	Val	Met	Ser	Val	Ile	Ser	Asp	Asp	Arg	Phe	Glu	Asp	Leu	Glu
		35					40					45			
Glu	Ala	Asn	Pro	Phe	Ser	Phe	Arg	Glu	Phe	Leu	Lys	Thr	Lys	Asn	Leu
	50					55					60				
Gly	Leu	Ser	Lys	Glu	Asp	Pro	Ala	Ser	Arg	Ile	Tyr	Ala	Lys	Glu	Ala
	65				70					75					80
Ser	Arg	His	Ser	Leu	Gly	Leu	Asp	His	Asn	Ser	Pro	Pro	Ser	Gln	Thr
				85					90					95	
Gly	Gly	Tyr	Gly	Leu	Glu	Tyr	Gln	Gln	Pro	Phe	Phe	Glu	Asp	Pro	Thr
			100					105					110		
Gly	Ala	Gly	Asp	Leu	Leu	Asp	Glu	Glu	Glu	Asp	Glu	Asp	Thr	Gly	Trp
		115					120					125			
Ser	Gly	Ala	Tyr	Leu	Pro	Ser	Ala	Ile	Glu	Gln	Thr	His	Pro	Glu	Arg
	130					135					140				
Val	Pro	Ala	Gly	Thr	Ser	Pro	Cys	Ser	Thr	Tyr	Leu	Ser	Phe	Phe	Ser
					150					155					160
Thr	Pro	Ser	Glu	Leu	Ala	Gly	Pro	Glu	Ser	Leu	Pro	Ser	Trp	Ala	Leu
				165					170					175	
Ser	Asp	Thr	Asp	Ser	Arg	Val	Ser	Pro	Ala	Ser	Pro	Ala	Gly	Ser	Pro
		180						185					190		
Ser	Ala	Asp	Phe	Ala	Val	His	Gly	Glu	Ser	Leu	Gly	Asp	Arg	His	Leu
		195					200					205			
Arg	Thr	Leu	Gln	Ile	Ser	Tyr	Asp	Ala	Leu	Lys	Asp	Glu	Asn	Ser	Lys
	210					215					220				
Leu	Arg	Arg	Lys	Leu	Asn	Glu	Val	Gln	Ser	Phe	Ser	Glu	Ala	Gln	Thr
	225				230					235					240
Glu	Met	Val	Arg	Thr	Leu	Glu	Arg	Lys	Leu	Glu	Ala	Lys	Met	Ile	Lys
				245					250					255	
Glu	Glu	Ser	Asp	Tyr	His	Asp	Leu	Glu	Ser	Val	Val	Gln	Gln	Val	Glu
			260					265					270		
Gln	Asn	Leu	Glu	Leu	Met	Thr	Lys	Arg	Ala	Val	Lys	Ala	Glu	Asn	His
	275						280					285			
Val	Val	Lys	Leu	Lys	Gln	Glu	Ile	Ser	Leu	Leu	Gln	Ala	Gln	Val	Ser
	290					295					300				
Asn	Phe	Gln	Arg	Glu	Asn	Glu	Ala	Leu	Arg	Cys	Gly	Gln	Gly	Ala	Ser
	305				310					315					320
Leu	Thr	Val	Val	Lys	Gln	Asn	Ala	Asp	Val	Ala	Leu	Gln	Asn	Leu	Arg
				325					330					335	
Val	Val	Met	Asn	Ser	Ala	Gln	Ala	Ser	Ile	Lys	Gln	Leu	Val	Ser	Gly
			340					345					350		
Ala	Glu	Thr	Leu	Asn	Leu	Val	Ala	Glu	Ile	Leu	Lys	Ser	Ile	Asp	Arg
		355					360						365		

Ile Ser Glu Val Lys Asp Glu Glu Glu Asp Ser \*  
 370 375 379

<210> 1619

<211> 476

<212> PRT

<213> Homo sapiens

<400> 1619

Met	Ala	Ala	Pro	Arg	Pro	Pro	Pro	Ala	Arg	Leu	Ser	Gly	Val	Met	Val
1				5					10					15	
Pro	Ala	Pro	Ile	Gln	Asp	Leu	Glu	Ala	Leu	Arg	Ala	Leu	Thr	Ala	Leu
			20					25					30		
Phe	Lys	Glu	Gln	Arg	Asn	Arg	Glu	Thr	Ala	Pro	Arg	Thr	Ile	Phe	Gln
		35				40						45			
Arg	Val	Leu	Asp	Ile	Leu	Lys	Lys	Ser	Ser	His	Ala	Val	Glu	Leu	Ala
	50					55					60				
Cys	Arg	Asp	Pro	Ser	Gln	Val	Glu	Asn	Leu	Ala	Ser	Ser	Leu	Gln	Leu
	65				70				75					80	
Ile	Thr	Glu	Cys	Phe	Arg	Cys	Leu	Arg	Asn	Ala	Cys	Ile	Glu	Cys	Ser
				85					90					95	
Val	Asn	Gln	Asn	Ser	Ile	Arg	Asn	Leu	Asp	Thr	Ile	Gly	Val	Ala	Val
			100					105					110		
Asp	Leu	Ile	Leu	Leu	Phe	Arg	Glu	Leu	Arg	Val	Glu	Gln	Glu	Ser	Leu
		115					120					125			
Leu	Thr	Ala	Phe	Arg	Cys	Gly	Leu	Gln	Phe	Leu	Gly	Asn	Ile	Ala	Ser
	130					135					140				
Arg	Asn	Glu	Asp	Ser	Gln	Ser	Ile	Val	Trp	Val	His	Ala	Phe	Pro	Glu
	145				150					155				160	
Leu	Phe	Leu	Ser	Cys	Leu	Asn	His	Pro	Asp	Lys	Lys	Ile	Val	Ala	Tyr
				165					170					175	
Ser	Ser	Met	Ile	Leu	Phe	Thr	Ser	Leu	Asn	His	Glu	Arg	Met	Lys	Glu
			180					185					190		
Leu	Glu	Glu	Asn	Leu	Asn	Ile	Ala	Ile	Asp	Val	Ile	Asp	Ala	Tyr	Gln
		195					200					205			
Lys	His	Pro	Glu	Ser	Glu	Trp	Pro	Phe	Leu	Ile	Ile	Thr	Asp	Leu	Phe
	210					215						220			
Leu	Lys	Ser	Pro	Glu	Leu	Val	Gln	Ala	Met	Phe	Pro	Lys	Leu	Asn	Asn
	225				230					235				240	
Gln	Glu	Arg	Val	Thr	Leu	Leu	Asp	Leu	Met	Ile	Ala	Lys	Ile	Thr	Ser
				245					250					255	
Asp	Glu	Pro	Leu	Thr	Lys	Asp	Asp	Ile	Pro	Val	Phe	Leu	Arg	His	Ala
			260					265						270	
Glu	Leu	Ile	Ala	Ser	Thr	Phe	Val	Asp	Gln	Cys	Lys	Thr	Val	Leu	Lys
		275					280					285			
Leu	Ala	Ser	Glu	Glu	Pro	Pro	Asp	Asp	Glu	Glu	Ala	Leu	Ala	Thr	Ile
	290					295					300				
Arg	Leu	Leu	Asp	Val	Leu	Cys	Glu	Met	Thr	Val	Asn	Thr	Glu	Leu	Leu
	305				310					315				320	
Gly	Tyr	Leu	Gln	Val	Phe	Pro	Gly	Leu	Leu	Glu	Arg	Val	Ile	Asp	Leu
				325					330					335	
Leu	Arg	Val	Ile	His	Val	Ala	Gly	Lys	Glu	Thr	Thr	Asn	Ile	Phe	Ser
			340					345					350		
Asn	Cys	Gly	Cys	Val	Arg	Ala	Glu	Gly	Asp	Ile	Ser	Asn	Val	Ala	Asn
		355					360					365			
Gly	Phe	Lys	Ser	His	Leu	Ile	Arg	Leu	Ile	Gly	Asn	Leu	Cys	Tyr	Lys
	370					375					380				
Asn	Lys	Asp	Asn	Gln	Asp	Lys	Val	Asn	Glu	Leu	Asp	Gly	Ile	Pro	Leu
	385				390					395				400	
Ile	Leu	Asp	Asn	Cys	Asn	Ile	Ser	Asp	Ser	Asn	Pro	Phe	Leu	Thr	Gln
				405					410					415	

Trp Val Ile Tyr Ala Ile Arg Asn Leu Thr Glu Asp Asn Ser Gln Asn  
 420 425 430  
 Gln Asp Leu Ile Ala Lys Met Glu Glu Gln Gly Leu Ala Asp Ala Ser  
 435 440 445  
 Leu Leu Lys Lys Val Gly Phe Glu Val Glu Lys Lys Gly Glu Lys Leu  
 450 455 460  
 Ile Leu Lys Ser Thr Arg Asp Thr Pro Lys Pro \*  
 465 470 475

&lt;210&gt; 1620

&lt;211&gt; 462

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1620

Met Glu Asp Leu Asp Ala Leu Leu Ser Asp Leu Glu Thr Thr Thr Ser  
 1 5 10 15  
 His Met Pro Arg Ser Gly Ala Pro Lys Glu Arg Pro Ala Glu Pro Leu  
 20 25 30  
 Thr Pro Pro Pro Ser Tyr Gly His Gln Pro Gln Thr Gly Ser Gly Glu  
 35 40 45  
 Ser Ser Gly Ala Ser Gly Asp Lys Asp His Leu Tyr Ser Thr Val Cys  
 50 55 60  
 Lys Pro Arg Ser Pro Lys Pro Ala Ala Pro Ala Ala Pro Pro Phe Ser  
 65 70 75 80  
 Ser Ser Ser Gly Val Leu Gly Thr Gly Leu Cys Glu Leu Asp Arg Leu  
 85 90 95  
 Leu Gln Glu Leu Asn Ala Thr Gln Phe Asn Ile Thr Asp Glu Ile Met  
 100 105 110  
 Ser Gln Phe Pro Ser Ser Lys Val Ala Ser Gly Glu Gln Lys Glu Asp  
 115 120 125  
 Gln Ser Glu Asp Lys Lys Arg Pro Ser Leu Pro Ser Ser Pro Ser Pro  
 130 135 140  
 Gly Leu Pro Lys Ala Ser Ala Thr Ser Ala Thr Leu Glu Leu Asp Arg  
 145 150 155 160  
 Leu Met Ala Ser Leu Ser Asp Phe Arg Val Gln Asn His Leu Pro Ala  
 165 170 175  
 Ser Gly Pro Thr Gln Pro Pro Val Val Ser Ser Thr Asn Glu Gly Ser  
 180 185 190  
 Pro Ser Pro Pro Glu Pro Thr Gly Lys Gly Ser Leu Asp Thr Met Leu  
 195 200 205  
 Gly Leu Leu Gln Ser Asp Leu Ser Arg Arg Gly Val Pro Thr Gln Ala  
 210 215 220  
 Lys Gly Leu Cys Gly Ser Cys Asn Lys Pro Ile Ala Gly Gln Val Val  
 225 230 235 240  
 Thr Ala Leu Gly Arg Ala Trp His Pro Glu His Phe Val Cys Gly Gly  
 245 250 255  
 Cys Ser Thr Ala Leu Gly Gly Ser Ser Phe Phe Glu Lys Asp Gly Ala  
 260 265 270  
 Pro Phe Cys Pro Glu Cys Tyr Phe Glu Arg Phe Ser Pro Arg Cys Gly  
 275 280 285  
 Phe Cys Asn Gln Pro Ile Arg His Lys Met Val Thr Ala Leu Gly Thr  
 290 295 300  
 His Trp His Pro Glu His Phe Cys Cys Val Ser Cys Gly Glu Pro Phe  
 305 310 315 320  
 Gly Asp Glu Gly Phe His Glu Arg Glu Gly Arg Pro Tyr Cys Arg Arg  
 325 330 335  
 Asp Phe Leu Gln Leu Phe Ala Pro Arg Cys Gln Gly Cys Gln Gly Pro  
 340 345 350  
 Ile Leu Asp Asn Tyr Ile Ser Ala Leu Ser Ala Leu Trp His Pro Asp  
 355 360 365

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Cys Phe Val Cys Arg Glu Cys Phe Ala Pro Phe Ser Gly Gly Ser Phe
  370          375          380
Phe Glu His Glu Gly Arg Pro Leu Cys Glu Asn His Phe His Ala Arg
  385          390          395          400
Arg Gly Ser Leu Cys Ala Thr Cys Gly Leu Pro Val Thr Gly Arg Cys
          405          410          415
Val Ser Ala Leu Gly Arg Arg Phe His Pro Asp His Phe Thr Cys Thr
          420          425          430
Phe Cys Leu Arg Pro Leu Thr Lys Gly Ser Phe Gln Glu Arg Ala Gly
          435          440          445
Lys Pro Tyr Cys Gln Pro Cys Phe Leu Lys Leu Phe Gly *
  450          455          460 461

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<210> 1621
<211> 2162
<212> PRT
<213> Homo sapiens

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<400> 1621
Met Glu Met Pro Arg Lys Pro Arg Leu Thr Leu Phe Val Gln Arg Arg
  1          5          10          15
Ile Glu Asn Ile Ala Thr Glu Arg Glu Phe Asp Pro Glu Glu Phe Tyr
          20          25          30
Tyr Leu Leu Glu Ala Ala Glu Gly His Ala Lys Glu Gly Gln Gly Ile
          35          40          45
Lys Thr Asp Ile Pro Arg Tyr Ile Ile Ser Gln Leu Gly Leu Asn Lys
          50          55          60
Asp Pro Leu Glu Glu Met Ala His Leu Gly Asn Tyr Asp Ser Gly Thr
          65          70          75          80
Ala Glu Thr Pro Glu Thr Asp Glu Ser Val Ser Ser Ser Asn Ala Ser
          85          90          95
Leu Lys Leu Arg Arg Lys Pro Arg Glu Ser Asp Phe Glu Thr Ile Lys
          100          105          110
Leu Ile Ser Asn Gly Ala Tyr Gly Ala Val Tyr Phe Val Arg His Lys
          115          120          125
Glu Ser Arg Gln Arg Phe Ala Met Lys Lys Ile Asn Lys Gln Asn Leu
          130          135          140
Ile Leu Arg Asn Gln Ile Gln Gln Ala Phe Val Glu Arg Asp Ile Leu
          145          150          155          160
Thr Phe Ala Glu Asn Pro Phe Val Val Ser Met Tyr Cys Ser Phe Glu
          165          170          175
Thr Arg Arg His Leu Cys Met Val Met Glu Tyr Val Glu Gly Gly Asp
          180          185          190
Cys Ala Thr Leu Met Lys Asn Met Gly Pro Leu Pro Val Asp Met Ala
          195          200          205
Arg Met Tyr Phe Ala Glu Thr Val Leu Ala Leu Glu Tyr Leu His Asn
          210          215          220
Tyr Gly Ile Val His Arg Asp Leu Lys Pro Asp Asn Leu Leu Val Thr
          225          230          235          240
Ser Met Gly His Ile Lys Leu Thr Asp Phe Gly Leu Ser Lys Val Gly
          245          250          255
Leu Met Ser Met Thr Thr Asn Leu Tyr Glu Gly His Ile Glu Lys Asp
          260          265          270
Ala Arg Glu Phe Leu Asp Lys Gln Val Cys Gly Thr Pro Glu Tyr Ile
          275          280          285
Ala Pro Glu Val Ile Leu Arg Gln Gly Tyr Gly Lys Pro Val Asp Trp
          290          295          300
Trp Ala Met Gly Ile Ile Leu Tyr Glu Phe Leu Val Gly Cys Val Pro
          305          310          315          320
Phe Phe Gly Asp Thr Pro Glu Glu Leu Phe Gly Gln Val Ile Ser Asp
          325          330          335

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Glu Ile Asn Trp Pro Glu Lys Asp Glu Ala Pro Pro Pro Asp Ala Gln  
 340 345 350  
 Asp Leu Ile Thr Leu Leu Leu Arg Gln Asn Pro Leu Glu Arg Leu Gly  
 355 360 365  
 Thr Gly Gly Ala Tyr Glu Val Lys Gln His Arg Phe Phe Arg Ser Leu  
 370 375 380  
 Asp Trp Asn Ser Leu Leu Arg Gln Lys Ala Glu Phe Ile Pro Gln Leu  
 385 390 395 400  
 Glu Ser Glu Asp Asp Thr Ser Tyr Phe Asp Thr Arg Ser Glu Lys Tyr  
 405 410 415  
 His His Met Glu Thr Glu Glu Glu Asp Asp Thr Asn Asp Glu Asp Phe  
 420 425 430  
 Asn Val Glu Ile Arg Gln Phe Ser Ser Cys Ser His Arg Phe Ser Lys  
 435 440 445  
 Val Phe Ser Ser Ile Asp Arg Ile Thr Gln Asn Ser Ala Glu Glu Lys  
 450 455 460  
 Glu Asp Ser Val Asp Lys Thr Lys Ser Thr Thr Leu Pro Ser Thr Glu  
 465 470 475 480  
 Thr Leu Ser Trp Ser Ser Glu Tyr Ser Glu Met Gln Gln Leu Ser Thr  
 485 490 495  
 Ser Asn Ser Ser Asp Thr Glu Ser Asn Arg His Lys Leu Ser Ser Gly  
 500 505 510  
 Leu Leu Pro Lys Leu Ala Ile Ser Thr Glu Gly Glu Gln Asp Glu Ala  
 515 520 525  
 Ala Ser Cys Pro Gly Asp Pro His Glu Glu Pro Gly Lys Pro Ala Leu  
 530 535 540  
 Pro Pro Glu Glu Cys Ala Gln Glu Glu Pro Glu Val Thr Thr Pro Ala  
 545 550 555 560  
 Ser Thr Ile Ser Ser Ser Thr Leu Ser Val Gly Ser Phe Ser Glu His  
 565 570 575  
 Leu Asp Gln Ile Asn Gly Arg Ser Glu Cys Val Asp Ser Thr Asp Asn  
 580 585 590  
 Ser Ser Lys Pro Ser Ser Glu Pro Ala Ser His Met Ala Arg Gln Arg  
 595 600 605  
 Leu Glu Ser Thr Glu Lys Lys Lys Ile Ser Gly Lys Val Thr Lys Ser  
 610 615 620  
 Leu Ser Ala Ser Ala Leu Ser Leu Met Ile Pro Gly Asp Met Phe Ala  
 625 630 635 640  
 Val Ser Pro Leu Gly Ser Pro Met Ser Pro His Ser Leu Ser Ser Asp  
 645 650 655  
 Pro Ser Ser Ser Arg Asp Ser Ser Pro Ser Arg Asp Ser Ser Ala Ala  
 660 665 670  
 Ser Ala Ser Pro His Gln Pro Ile Val Ile His Ser Ser Gly Lys Asn  
 675 680 685  
 Tyr Gly Phe Thr Ile Arg Ala Ile Arg Val Tyr Val Gly Asp Ser Asp  
 690 695 700  
 Ile Tyr Thr Val His His Ile Val Trp Asn Val Glu Glu Gly Ser Pro  
 705 710 715 720  
 Ala Cys Gln Ala Gly Leu Lys Ala Gly Asp Leu Ile Thr His Ile Asn  
 725 730 735  
 Gly Glu Pro Val His Gly Leu Val His Thr Glu Val Ile Glu Leu Leu  
 740 745 750  
 Leu Lys Ser Gly Asn Lys Val Ser Ile Thr Thr Thr Pro Phe Glu Asn  
 755 760 765  
 Thr Ser Ile Lys Thr Gly Pro Ala Arg Arg Asn Ser Tyr Lys Ser Arg  
 770 775 780  
 Met Val Arg Arg Ser Lys Lys Ser Lys Lys Lys Glu Ser Leu Glu Arg  
 785 790 795 800  
 Arg Arg Ser Leu Phe Lys Lys Leu Ala Lys Gln Pro Ser Pro Leu Leu  
 805 810 815  
 His Thr Ser Arg Ser Phe Ser Cys Leu Asn Arg Ser Leu Ser Ser Gly  
 820 825 830  
 Glu Ser Leu Pro Gly Ser Pro Thr His Ser Leu Ser Pro Arg Ser Pro  
 835 840 845

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Thr Pro Ser Tyr Arg Ser Thr Pro Asp Phe Pro Ser Gly Thr Asn Ser
850                      855                      860
Ser Gln Ser Ser Ser Pro Ser Ser Ser Ala Pro Asn Ser Pro Ala Gly
865                      870                      875                      880
Ser Gly His Ile Arg Pro Ser Thr Leu His Gly Leu Ala Pro Lys Leu
885                      890                      895
Gly Gly Gln Arg Tyr Arg Ser Gly Arg Arg Lys Ser Ala Gly Asn Ile
900                      905                      910
Pro Leu Ser Pro Leu Ala Arg Thr Pro Ser Pro Thr Pro Gln Pro Thr
915                      920                      925
Ser Pro Gln Arg Ser Pro Ser Pro Leu Leu Gly His Ser Leu Gly Asn
930                      935                      940
Ser Lys Ile Ala Gln Ala Phe Pro Ser Lys Met His Ser Pro Pro Thr
945                      950                      955                      960
Ile Val Arg His Ile Val Arg Pro Lys Ser Ala Glu Pro Pro Arg Ser
965                      970                      975
Pro Leu Leu Lys Arg Val Gln Ser Glu Glu Lys Leu Ser Pro Ser Tyr
980                      985                      990
Gly Ser Asp Lys Lys His Leu Cys Ser Arg Lys His Ser Leu Glu Val
995                      1000                      1005
Thr Gln Glu Glu Val Gln Arg Glu Gln Ser Gln Arg Glu Ala Pro Leu
1010                      1015                      1020
Gln Ser Leu Asp Glu Asn Val Cys Asp Val Pro Pro Leu Ser Arg Ala
1025                      1030                      1035                      1040
Arg Pro Val Glu Gln Gly Cys Leu Lys Arg Pro Val Ser Arg Lys Val
1045                      1050                      1055
Gly Arg Gln Glu Ser Val Asp Asp Leu Asp Arg Asp Lys Leu Lys Ala
1060                      1065                      1070
Lys Val Val Val Lys Lys Ala Asp Gly Phe Pro Glu Lys Gln Glu Ser
1075                      1080                      1085
His Gln Lys Ser His Gly Pro Gly Ser Asp Leu Glu Asn Phe Ala Leu
1090                      1095                      1100
Phe Lys Leu Glu Glu Arg Glu Lys Lys Val Tyr Pro Lys Ala Val Glu
1105                      1110                      1115                      1120
Arg Ser Ser Thr Phe Glu Asn Lys Ala Ser Met Gln Glu Ala Pro Pro
1125                      1130                      1135
Leu Gly Ser Leu Leu Lys Asp Ala Leu His Lys Gln Ala Ser Val Arg
1140                      1145                      1150
Ala Ser Glu Gly Ala Met Ser Asp Gly Pro Val Pro Ala Glu His Arg
1155                      1160                      1165
Gln Gly Gly Gly Asp Phe Arg Arg Ala Pro Ala Pro Gly Thr Leu Gln
1170                      1175                      1180
Asp Gly Leu Cys His Ser Leu Asp Arg Gly Ile Ser Gly Lys Gly Glu
1185                      1190                      1195                      1200
Gly Thr Glu Lys Ser Ser Gln Ala Lys Glu Leu Leu Arg Cys Glu Lys
1205                      1210                      1215
Leu Asp Ser Lys Leu Ala Asn Ile Asp Tyr Leu Arg Lys Lys Met Ser
1220                      1225                      1230
Leu Glu Asp Lys Glu Asp Asn Leu Cys Pro Val Leu Lys Pro Lys Met
1235                      1240                      1245
Thr Ala Gly Ser His Glu Cys Leu Pro Gly Asn Pro Val Arg Pro Thr
1250                      1255                      1260
Gly Gly Gln Gln Glu Pro Pro Pro Ala Ser Glu Ser Arg Ala Phe Val
1265                      1270                      1275                      1280
Ser Ser Thr His Ala Ala Gln Met Ser Ala Val Ser Phe Val Pro Leu
1285                      1290                      1295
Lys Ala Leu Thr Gly Arg Val Asp Ser Gly Thr Glu Lys Pro Gly Leu
1300                      1305                      1310
Val Ala Pro Glu Ser Pro Val Arg Lys Ser Pro Ser Glu Tyr Lys Leu
1315                      1320                      1325
Glu Gly Arg Ser Val Ser Cys Leu Glu Pro Ile Glu Gly Thr Leu Asp
1330                      1335                      1340
Ile Ala Leu Leu Ser Gly Pro Gln Ala Ser Lys Thr Glu Leu Pro Ser
1345                      1350                      1355                      1360

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Pro Glu Ser Ala Gln Ser Pro Ser Pro Ser Gly Asp Val Arg Ala Ser  
 1365 1370 1375  
 Val Pro Pro Val Leu Pro Ser Ser Ser Gly Lys Lys Asn Asp Thr Thr  
 1380 1385 1390  
 Ser Ala Arg Glu Leu Ser Pro Ser Ser Leu Lys Met Asn Lys Ser Tyr  
 1395 1400 1405  
 Leu Leu Glu Pro Trp Phe Leu Pro Pro Ser Arg Gly Leu Gln Asn Ser  
 1410 1415 1420  
 Pro Ala Val Ser Leu Pro Asp Pro Glu Phe Lys Arg Asp Arg Lys Gly  
 1425 1430 1435 1440  
 Pro His Pro Thr Ala Arg Ser Pro Gly Thr Val Met Glu Ser Asn Pro  
 1445 1450 1455  
 Gln Gln Arg Glu Gly Ser Ser Pro Lys His Gln Asp His Thr Thr Asp  
 1460 1465 1470  
 Pro Lys Leu Leu Thr Cys Leu Gly Gln Asn Leu His Ser Pro Asp Leu  
 1475 1480 1485  
 Ala Arg Pro Arg Cys Pro Leu Pro Pro Glu Ala Ser Pro Ser Arg Glu  
 1490 1495 1500  
 Lys Pro Gly Leu Arg Glu Ser Ser Glu Arg Gly Pro Pro Thr Ala Arg  
 1505 1510 1515 1520  
 Ser Glu Arg Ser Ala Ala Arg Ala Asp Thr Cys Arg Glu Pro Ser Met  
 1525 1530 1535  
 Glu Leu Cys Phe Pro Glu Thr Ala Lys Thr Ser Asp Asn Ser Lys Asn  
 1540 1545 1550  
 Leu Leu Ser Val Gly Arg Thr His Pro Asp Phe Tyr Thr Gln Thr Gln  
 1555 1560 1565  
 Ala Met Glu Lys Ala Trp Ala Pro Gly Gly Lys Thr Asn His Lys Asp  
 1570 1575 1580  
 Gly Pro Gly Glu Ala Arg Pro Pro Pro Arg Asp Asn Ser Ser Leu His  
 1585 1590 1595 1600  
 Ser Ala Gly Ile Pro Cys Glu Lys Glu Leu Gly Lys Val Arg Arg Gly  
 1605 1610 1615  
 Val Glu Pro Lys Pro Glu Ala Leu Leu Ala Arg Arg Ser Leu Gln Pro  
 1620 1625 1630  
 Pro Gly Ile Glu Ser Glu Lys Ser Glu Lys Leu Ser Ser Phe Pro Ser  
 1635 1640 1645  
 Leu Gln Lys Asp Gly Ala Lys Glu Pro Glu Arg Lys Glu Gln Pro Leu  
 1650 1655 1660  
 Gln Arg His Pro Ser Ser Ile Pro Pro Pro Pro Leu Thr Ala Lys Asp  
 1665 1670 1675 1680  
 Leu Ser Ser Pro Ala Ala Arg Gln His Cys Ser Ser Pro Ser His Ala  
 1685 1690 1695  
 Ser Gly Arg Glu Pro Gly Ala Lys Pro Ser Thr Ala Glu Pro Ser Ser  
 1700 1705 1710  
 Ser Pro Gln Asp Pro Pro Lys Pro Val Ala Ala His Ser Glu Ser Ser  
 1715 1720 1725  
 Ser His Lys Pro Arg Pro Gly Pro Asp Pro Gly Pro Pro Lys Thr Lys  
 1730 1735 1740  
 His Pro Asp Arg Ser Leu Ser Ser Gln Lys Pro Ser Val Gly Ala Thr  
 1745 1750 1755 1760  
 Lys Gly Lys Glu Pro Ala Thr Gln Ser Leu Gly Gly Ser Ser Arg Glu  
 1765 1770 1775  
 Gly Lys Gly His Ser Lys Ser Gly Pro Asp Val Phe Pro Ala Thr Pro  
 1780 1785 1790  
 Gly Ser Gln Asn Lys Ala Ser Asp Gly Ile Gly Gln Gly Glu Gly Gly  
 1795 1800 1805  
 Pro Ser Val Pro Leu His Thr Asp Arg Ala Pro Leu Asp Ala Lys Pro  
 1810 1815 1820  
 Gln Pro Thr Ser Gly Gly Arg Pro Leu Glu Val Leu Glu Lys Pro Val  
 1825 1830 1835 1840  
 His Leu Pro Arg Pro Gly His Pro Gly Pro Ser Glu Pro Ala Asp Gln  
 1845 1850 1855  
 Lys Leu Ser Ala Val Gly Glu Lys Gln Thr Leu Ser Pro Lys His Pro  
 1860 1865 1870

Lys Pro Ser Thr Val Lys Asp Cys Pro Thr Leu Cys Lys Gln Thr Asp  
 1875 1880 1885  
 Asn Arg Gln Thr Asp Lys Ser Pro Ser Gln Pro Ala Ala Asn Thr Asp  
 1890 1895 1900  
 Arg Arg Ala Glu Gly Lys Lys Cys Thr Glu Ala Leu Tyr Ala Pro Ala  
 1905 1910 1915 1920  
 Glu Gly Asp Lys Leu Glu Ala Gly Leu Ser Phe Val His Ser Glu Asn  
 1925 1930 1935  
 Arg Leu Lys Gly Ala Glu Arg Pro Ala Ala Gly Val Gly Lys Gly Phe  
 1940 1945 1950  
 Pro Glu Ala Arg Gly Lys Gly Pro Gly Pro Gln Lys Pro Pro Thr Glu  
 1955 1960 1965  
 Ala Asp Lys Pro Asn Gly Met Lys Arg Ser Pro Ser Ala Thr Gly Gln  
 1970 1975 1980  
 Ser Ser Phe Arg Ser Thr Ala Leu Pro Glu Lys Ser Leu Ser Cys Ser  
 1985 1990 1995 2000  
 Ser Ser Phe Pro Glu Thr Arg Ala Gly Val Arg Glu Ala Ser Ala Ala  
 2005 2010 2015  
 Ser Ser Asp Thr Ser Ser Ala Lys Ala Ala Gly Gly Met Leu Glu Leu  
 2020 2025 2030  
 Pro Ala Pro Ser Asn Arg Asp His Arg Lys Ala Gln Pro Ala Gly Glu  
 2035 2040 2045  
 Gly Arg Thr His Met Thr Lys Ser Asp Ser Leu Pro Ser Phe Arg Val  
 2050 2055 2060  
 Ser Thr Leu Pro Leu Glu Ser His His Pro Asp Pro Asn Thr Met Gly  
 2065 2070 2075 2080  
 Gly Ala Ser His Arg Asp Arg Ala Leu Ser Val Thr Ala Thr Val Gly  
 2085 2090 2095  
 Glu Thr Lys Gly Lys Asp Pro Ala Pro Ala Gln Pro Pro Pro Ala Arg  
 2100 2105 2110  
 Lys Gln Asn Val Gly Arg Asp Val Thr Lys Pro Ser Pro Ala Pro Asn  
 2115 2120 2125  
 Thr Asp Arg Pro Ile Ser Leu Ser Asn Glu Lys Asp Phe Val Val Arg  
 2130 2135 2140  
 Gln Arg Arg Gly Lys Glu Ser Leu Arg Ser Ser Pro His Lys Lys Ala  
 2145 2150 2155 2160  
 Leu \*  
 2161

<210> 1622  
 <211> 624  
 <212> PRT  
 <213> Homo sapiens

<400> 1622  
 Met Pro Ala Ser Phe Pro Leu Ser Arg Asn Ala Gly Thr Arg Gly Gly  
 1 5 10 15  
 Asn Pro Ala Pro Ser Pro Pro Leu Arg Ser Pro Gly Lys Gly Arg Leu  
 20 25 30  
 Ala Ser Pro Ile Leu Pro Gln Arg Ser Gly Asn Ile Pro Glu Ala Pro  
 35 40 45  
 Arg Arg Tyr Asp Pro Gly Val Arg Ile Gly Leu Gly Gly Ala Ala Ala  
 50 55 60  
 Leu Leu Ser Ala Phe Arg Cys His Ala Thr Ala Ser Pro Ser His Pro  
 65 70 75 80  
 Ser Leu Ser Thr Ser Gly Arg Asp Cys Arg Val Met Arg Tyr Ser Val  
 85 90 95  
 Gly Asp Gly Arg Thr Gly Asp Gly Asp Asn Arg Asn His Ile His Asp  
 100 105 110  
 Gly Asp His Gly Arg Gly Glu Glu Pro Ile Ala Pro Pro Leu Ala Pro  
 115 120 125



Arg Thr Arg Lys Pro Pro Leu Arg Pro Gly Asp Arg Ala Pro Val Cys  
 130 135 140  
 Arg Trp Ala Gly Leu Arg Asn His Ala Gln Asn Lys Ala Lys Leu Ile  
 145 150 155 160  
 Ser Glu Thr Arg Arg Phe Glu Ala Glu Tyr Val Thr Asp Lys Ser  
 165 170 175  
 Asp Lys Tyr Asp Ala Arg Asp Val Glu Arg Leu Gln Gln Asp Asp Asn  
 180 185 190  
 Trp Val Glu Ser Tyr Leu Ser Trp Arg His Asn Ile Val Asp Glu Thr  
 195 200 205  
 Leu Lys Met Leu Asp Glu Ser Phe Gln Trp Arg Lys Glu Ile Ser Val  
 210 215 220  
 Asn Val Trp Ile Arg Val Lys Tyr His Val Lys Asp Gln Lys Thr Ile  
 225 230 235 240  
 Leu Asp Lys Lys Lys Leu Ile Ala Phe Trp Leu Glu Arg Tyr Ala Lys  
 245 250 255  
 Arg Glu Asn Gly Lys Pro Val Thr Val Met Phe Asp Leu Ser Glu Thr  
 260 265 270  
 Gly Ile Asn Ser Ile Asp Met Asp Phe Val Arg Phe Ile Ile Asn Cys  
 275 280 285  
 Phe Lys Val Tyr Tyr Pro Lys Tyr Leu Ser Ala Phe Lys Ile Val Lys  
 290 295 300  
 Thr Trp Leu Gly Pro Glu Ala Val Ser Leu Leu Lys Phe Thr Ser Lys  
 305 310 315 320  
 Asn Glu Val Gln Asp Tyr Val Ser Val Glu Tyr Leu Pro Pro His Met  
 325 330 335  
 Gly Gly Thr Asp Pro Phe Lys Tyr Ser Tyr Pro Pro Leu Val Asp Asp  
 340 345 350  
 Asp Phe Gln Thr Pro Leu Cys Glu Asn Gly Pro Ile Thr Ser Glu Asp  
 355 360 365  
 Glu Thr Ser Ser Lys Glu Asp Ile Glu Ser Asp Gly Lys Glu Thr Leu  
 370 375 380  
 Glu Thr Ile Ser Asn Glu Glu Gln Thr Pro Leu Leu Lys Lys Ile Asn  
 385 390 395 400  
 Pro Thr Glu Ser Thr Ser Lys Ala Glu Glu Asn Glu Lys Val Asp Ser  
 405 410 415  
 Lys Val Lys Ala Phe Lys Lys Pro Leu Ser Val Phe Lys Gly Pro Leu  
 420 425 430  
 Leu His Ile Ser Pro Ala Glu Glu Leu Tyr Phe Gly Ser Thr Glu Ser  
 435 440 445  
 Gly Glu Lys Lys Thr Leu Ile Val Leu Thr Asn Val Thr Lys Asn Ile  
 450 455 460  
 Val Ala Phe Lys Val Arg Thr Thr Ala Pro Glu Lys Tyr Arg Val Lys  
 465 470 475 480  
 Pro Ser Asn Ser Ser Cys Asp Pro Gly Ala Ser Val Asp Ile Val Val  
 485 490 495  
 Ser Pro His Gly Gly Leu Thr Val Ser Ala Gln Asp Arg Phe Leu Ile  
 500 505 510  
 Met Ala Ala Glu Met Glu Gln Ser Ser Gly Thr Gly Pro Ala Glu Leu  
 515 520 525  
 Thr Gln Phe Trp Lys Glu Val Pro Arg Asn Lys Val Met Glu His Arg  
 530 535 540  
 Leu Arg Cys His Thr Val Glu Ser Ser Lys Pro Asn Thr Leu Thr Leu  
 545 550 555 560  
 Lys Asp Asn Ala Phe Asn Met Ser Asp Lys Thr Ser Glu Asp Ile Cys  
 565 570 575  
 Leu Gln Leu Ser Arg Leu Leu Glu Ser Asn Arg Lys Leu Glu Asp Gln  
 580 585 590  
 Val Gln Arg Cys Ile Trp Phe Gln Gln Leu Leu Leu Ser Leu Thr Met  
 595 600 605  
 Leu Leu Leu Ala Phe Val Thr Ser Phe Phe Tyr Leu Leu Tyr Ser \*  
 610 615 620 623

<210> 1623  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 1623  
 Met Gln Lys Leu Gln Thr Arg Ser Pro Ala Met Ser Leu Ser Asp Pro  
 1 5 10 15  
 Gly Leu Gly Tyr His Pro Thr Cys Trp Thr Leu Arg Trp Pro Pro Leu  
 20 25 30  
 Cys Ser Leu His Ala Leu His Val Phe His Cys Leu Phe Ser Ser Arg  
 35 40 45  
 Leu Gly Thr Pro Val Ser Pro Arg Leu Ala Met Asp Pro Asn Cys Ser  
 50 55 60  
 Cys Glu Ala Gly Gly Ser Cys Ala Cys Ala Gly Ser Cys Lys Cys Lys  
 65 70 75 80  
 Lys Cys Lys Cys Thr Ser Cys Lys Lys Ser Cys Cys Ser Cys Cys Pro  
 85 90 95  
 Leu Gly Cys Ala Lys Cys Ala Gln Gly Cys Ile Cys Lys Gly Ala Ser  
 100 105 110  
 Glu Lys Cys Ser Cys Cys Ala \*  
 115 119

<210> 1624  
 <211> 240  
 <212> PRT  
 <213> Homo sapiens

<400> 1624  
 Met Met Arg Lys Met Leu Leu Ala Ala Ala Leu Ser Val Thr Ala Met  
 1 5 10 15  
 Thr Ala His Ala Asp Tyr Gln Cys Ser Val Thr Pro Arg Asp Asp Val  
 20 25 30  
 Ile Val Ser Pro Gln Thr Val Gln Val Lys Gly Glu Asn Gly Asn Leu  
 35 40 45  
 Val Ile Thr Pro Asp Gly Asn Val Met Tyr Asn Gly Lys Gln Tyr Ser  
 50 55 60  
 Leu Asn Ala Ala Gln Arg Glu Gln Ala Lys Asp Tyr Gln Ala Glu Leu  
 65 70 75 80  
 Arg Ser Thr Leu Pro Trp Ile Asp Glu Gly Ala Lys Ser Arg Val Glu  
 85 90 95  
 Lys Ala Arg Ile Ala Leu Asp Lys Ile Ile Val Gln Glu Met Gly Glu  
 100 105 110  
 Ser Ser Lys Met Arg Ser Arg Leu Thr Lys Leu Asp Ala Gln Leu Lys  
 115 120 125  
 Glu Gln Met Asn Arg Ile Ile Glu Thr Arg Ser Asp Gly Leu Thr Phe  
 130 135 140  
 His Tyr Lys Ala Ile Asp Gln Val Arg Ala Glu Gly Gln Gln Leu Val  
 145 150 155 160  
 Asn Gln Ala Met Gly Gly Ile Leu Gln Asp Ser Ile Asn Glu Met Gly  
 165 170 175  
 Ala Lys Ala Val Leu Lys Ser Gly Gly Asn Pro Leu Gln Asn Val Leu  
 180 185 190  
 Gly Ser Leu Gly Gly Leu Gln Ser Ser Ile Gln Thr Glu Trp Lys Lys  
 195 200 205  
 Gln Glu Lys Asp Phe Gln Gln Phe Gly Lys Asp Val Cys Ser Arg Val  
 210 215 220  
 Val Thr Leu Glu Asp Ser Arg Lys Ala Leu Val Gly Asn Leu Lys \*  
 225 230 235 239

<210> 1625  
 <211> 645  
 <212> PRT  
 <213> Homo sapiens

<400> 1625  
 Met Leu Glu Asn Tyr Gly Asn Val Ala Ser Leu Gly Phe Pro Leu Leu  
 1 5 10 15  
 Lys Pro Ala Val Ile Ser Gln Leu Glu Gly Gly Ser Glu Leu Gly Gly  
 20 25 30  
 Ser Ser Pro Leu Ala Ala Gly Thr Gly Leu Gln Gly Leu Gln Thr Val  
 35 40 45  
 Asp Ile Gln Thr Asp Asn Asp Leu Thr Lys Glu Met Tyr Glu Gly Lys  
 50 55 60  
 Glu Asn Val Ser Phe Glu Leu Gln Arg Asp Phe Ser Gln Glu Thr Asp  
 65 70 75 80  
 Phe Ser Glu Ala Ser Leu Leu Glu Lys Gln Gln Glu Val His Ser Ala  
 85 90 95  
 Gly Asn Ile Lys Lys Glu Lys Ser Asn Thr Ile Asp Gly Thr Val Lys  
 100 105 110  
 Asp Glu Thr Ser Pro Val Glu Glu Cys Phe Phe Ser Gln Ser Ser Asn  
 115 120 125  
 Ser Tyr Gln Cys His Thr Ile Thr Gly Glu Gln Pro Ser Gly Cys Thr  
 130 135 140  
 Gly Leu Gly Lys Ser Ile Ser Phe Asp Thr Lys Leu Val Lys His Glu  
 145 150 155 160  
 Ile Ile Asn Ser Glu Glu Arg Pro Phe Lys Cys Glu Glu Leu Val Glu  
 165 170 175  
 Pro Phe Arg Cys Asp Ser Gln Leu Ile Gln His Gln Glu Asn Asn Thr  
 180 185 190  
 Glu Glu Lys Pro Tyr Gln Cys Ser Glu Cys Gly Lys Ala Phe Ser Ile  
 195 200 205  
 Asn Glu Lys Leu Ile Trp His Gln Arg Leu His Ser Gly Glu Lys Pro  
 210 215 220  
 Phe Lys Cys Val Glu Cys Gly Lys Ser Phe Ser Tyr Ser Ser His Tyr  
 225 230 235 240  
 Ile Thr His Gln Thr Ile His Ser Gly Glu Lys Pro Tyr Gln Cys Lys  
 245 250 255  
 Met Cys Gly Lys Ala Phe Ser Val Asn Gly Ser Leu Ser Arg His Gln  
 260 265 270  
 Arg Ile His Thr Gly Glu Lys Pro Tyr Gln Cys Lys Glu Cys Gly Asn  
 275 280 285  
 Gly Phe Ser Cys Ser Ser Ala Tyr Ile Thr His Gln Arg Val His Thr  
 290 295 300  
 Gly Glu Lys Pro Tyr Glu Cys Asn Asp Cys Gly Lys Ala Phe Asn Val  
 305 310 315 320  
 Asn Ala Lys Leu Ile Gln His Gln Arg Ile His Thr Gly Glu Lys Pro  
 325 330 335  
 Tyr Glu Cys Asn Glu Cys Gly Lys Gly Phe Arg Cys Ser Ser Gln Leu  
 340 345 350  
 Arg Gln His Gln Ser Ile His Thr Gly Glu Lys Pro Tyr Gln Cys Lys  
 355 360 365  
 Glu Cys Gly Lys Gly Phe Asn Asn Asn Thr Lys Leu Ile Gln His Gln  
 370 375 380  
 Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Thr Glu Cys Gly Lys  
 385 390 395 400  
 Ala Phe Ser Val Lys Gly Lys Leu Ile Gln His Gln Arg Ile His Thr  
 405 410 415  
 Gly Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly Lys Ala Phe Arg Cys  
 420 425 430

Asn Ser Gln Phe Arg Gln His Leu Arg Ile His Thr Gly Glu Lys Pro  
           435                                  440                                  445  
 Tyr Glu Cys Asn Glu Cys Gly Lys Ala Phe Ser Val Asn Gly Lys Leu  
           450                                  455                                  460  
 Met Arg His Gln Arg Ile His Thr Gly Glu Lys Pro Phe Glu Cys Asn  
 465                                  470                                  475                                  480  
 Glu Cys Gly Arg Cys Phe Thr Ser Lys Arg Asn Leu Leu Asp His His  
                                   485                                  490                                  495  
 Arg Ile His Thr Gly Glu Lys Pro Tyr Gln Cys Lys Glu Cys Gly Lys  
                                   500                                  505                                  510  
 Ala Phe Ser Ile Asn Ala Lys Leu Thr Arg His Gln Arg Ile His Thr  
           515                                  520                                  525  
 Gly Glu Lys Pro Phe Lys Cys Met Glu Cys Glu Lys Ala Phe Ser Cys  
           530                                  535                                  540  
 Ser Ser Asn Tyr Ile Val His Gln Arg Ile His Thr Gly Glu Lys Pro  
 545                                  550                                  555                                  560  
 Phe Gln Cys Lys Glu Cys Gly Lys Ala Phe His Val Asn Ala His Leu  
                                   565                                  570                                  575  
 Ile Arg His Gln Arg Ser His Thr Gly Glu Lys Pro Phe Arg Cys Val  
                                   580                                  585                                  590  
 Glu Cys Gly Lys Gly Phe Ser Phe Ser Ser Asp Tyr Ile Ile His Gln  
           595                                  600                                  605  
 Thr Val His Thr Trp Lys Lys Pro Tyr Met Cys Ser Val Cys Gly Lys  
           610                                  615                                  620  
 Ala Phe Arg Phe Ser Phe Gln Leu Ser Gln His Gln Ser Val His Ser  
 625                                  630                                  635                                  640  
 Glu Gly Lys Ser \*  
                                   644

<210> 1626  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 1626  
 Met His Ala Tyr Val Ser Leu Asp Pro Leu Glu Arg Pro Pro Thr Thr  
 1                                  5                                  10                                  15  
 Thr Lys Phe Ala Ala Ala Ser Asp Arg Arg Ala Ala Ile Met Asp  
                                   20                                  25                                  30  
 Thr Ser Arg Val Gln Pro Ile Lys Leu Ala Arg Val Thr Lys Val Leu  
           35                                  40                                  45  
 Gly Arg Thr Gly Ser Gln Gly Gln Cys Thr Gln Val Arg Val Glu Phe  
           50                                  55                                  60  
 Met Asp Asp Thr Ser Arg Ser Ile Ile Arg Asn Val Lys Gly Pro Val  
 65                                  70                                  75                                  80  
 Arg Glu Gly Asp Val Leu Thr Leu Leu Glu Ser Glu Arg Glu Ala Arg  
                                   85                                  90                                  95  
 Arg Leu Arg \*  
                                   99

<210> 1627  
 <211> 294  
 <212> PRT  
 <213> Homo sapiens

<400> 1627  
 Met Ala Asp Asp Ala Gly Ala Ala Gly Gly Pro Gly Gly Pro Gly Gly  
 1                                  5                                  10                                  15

Pro Gly Met Gly Asn Arg Gly Gly Phe Arg Gly Gly Phe Gly Ser Gly  
                   20                  25                  30  
 Ile Arg Gly Arg Gly Arg Gly Arg Gly Arg Gly Arg Gly Arg Gly Arg  
                   35                  40                  45  
 Gly Ala Arg Gly Gly Lys Ala Glu Asp Lys Glu Trp Met Pro Val Thr  
                   50                  55                  60  
 Lys Leu Gly Arg Leu Val Lys Asp Met Lys Ile Lys Ser Leu Glu Glu  
                   65                  70                  75                  80  
 Ile Tyr Leu Phe Ser Leu Pro Ile Lys Glu Ser Glu Ile Ile Asp Phe  
                   85                  90                  95  
 Phe Leu Gly Ala Ser Leu Lys Asp Glu Val Leu Lys Ile Met Pro Val  
                   100                  105                  110  
 Gln Lys Gln Thr Arg Ala Gly Gln Arg Thr Arg Phe Lys Ala Phe Val  
                   115                  120                  125  
 Ala Ile Gly Asp Tyr Asn Gly His Val Gly Leu Gly Val Lys Cys Ser  
                   130                  135                  140  
 Lys Glu Val Ala Thr Ala Ile Arg Gly Ala Ile Ile Leu Ala Lys Leu  
                   145                  150                  155                  160  
 Ser Ile Val Pro Val Arg Arg Gly Tyr Trp Gly Asn Lys Ile Gly Lys  
                   165                  170                  175  
 Pro His Thr Val Pro Cys Lys Val Thr Gly Arg Cys Gly Ser Val Leu  
                   180                  185                  190  
 Val Arg Leu Ile Pro Ala Pro Arg Gly Thr Gly Ile Val Ser Ala Pro  
                   195                  200                  205  
 Val Pro Lys Lys Leu Leu Met Met Ala Gly Ile Asp Asp Cys Tyr Thr  
                   210                  215                  220  
 Ser Ala Arg Gly Cys Thr Ala Thr Leu Gly Asn Phe Ala Lys Ala Thr  
                   225                  230                  235                  240  
 Phe Asp Ala Ile Ser Lys Thr Tyr Ser Tyr Leu Thr Pro Asp Leu Trp  
                   245                  250                  255  
 Lys Glu Thr Val Phe Thr Lys Ser Pro Tyr Gln Glu Phe Thr Asp His  
                   260                  265                  270  
 Leu Val Lys Thr His Thr Arg Val Ser Val Gln Arg Thr Gln Ala Pro  
                   275                  280                  285  
 Ala Val Ala Thr Thr \*  
                   290                  293

<210> 1628  
 <211> 1054  
 <212> PRT  
 <213> Homo sapiens

<400> 1628  
 Met Phe Gly Arg Ser Arg Ser Trp Val Gly Gly Gly His Gly Lys Thr  
                   1                  5                  10                  15  
 Ser Arg Asn Ile His Ser Leu Asp His Leu Lys Tyr Leu Tyr His Val  
                   20                  25                  30  
 Leu Thr Lys Asn Thr Thr Val Thr Glu Gln Asn Arg Asn Leu Leu Val  
                   35                  40                  45  
 Glu Thr Ile Arg Ser Ile Thr Glu Ile Leu Ile Trp Gly Asp Gln Asn  
                   50                  55                  60  
 Asp Ser Ser Val Phe Asp Phe Phe Leu Glu Lys Asn Met Phe Val Phe  
                   65                  70                  75                  80  
 Phe Leu Asn Ile Leu Arg Gln Lys Ser Gly Arg Tyr Val Cys Val Gln  
                   85                  90                  95  
 Leu Leu Gln Thr Leu Asn Ile Leu Phe Glu Asn Ile Ser His Glu Thr  
                   100                  105                  110  
 Ser Leu Tyr Tyr Leu Leu Ser Asn Asn Tyr Val Asn Ser Ile Ile Val  
                   115                  120                  125  
 His Lys Phe Asp Phe Ser Asp Glu Glu Ile Met Ala Tyr Tyr Ile Ser  
                   130                  135                  140

Phe Leu Lys Thr Leu Ser Leu Lys Leu Asn Asn His Thr Val His Phe  
 145 150 155 160  
 Phe Tyr Asn Glu His Thr Asn Asp Phe Ala Leu Tyr Thr Glu Ala Ile  
 165 170 175  
 Lys Phe Phe Asn His Pro Glu Ser Met Val Arg Ile Ala Val Arg Thr  
 180 185 190  
 Ile Thr Leu Asn Val Tyr Lys Val Ser Leu Asp Asn Gln Ala Met Leu  
 195 200 205  
 His Tyr Ile Arg Asp Lys Thr Ala Val Pro Tyr Phe Ser Asn Leu Val  
 210 215 220  
 Trp Phe Ile Gly Ser His Val Ile Glu Leu Asp Asp Cys Val Gln Thr  
 225 230 235 240  
 Asp Glu Glu His Arg Asn Arg Gly Lys Leu Ser Asp Leu Val Ala Glu  
 245 250 255  
 His Leu Asp His Leu His Tyr Leu Asn Asp Ile Leu Ile Ile Asn Cys  
 260 265 270  
 Glu Phe Leu Asn Asp Val Leu Thr Asp His Leu Leu Asn Arg Leu Phe  
 275 280 285  
 Leu Pro Leu Tyr Val Tyr Ser Leu Glu Asn Gln Asp Lys Gly Gly Glu  
 290 295 300  
 Arg Pro Lys Ile Ser Leu Pro Val Ser Leu Tyr Leu Leu Ser Gln Val  
 305 310 315 320  
 Phe Leu Ile Ile His His Ala Pro Leu Val Asn Ser Leu Ala Glu Val  
 325 330 335  
 Ile Leu Asn Gly Asp Leu Ser Glu Met Tyr Ala Lys Thr Glu Gln Asp  
 340 345 350  
 Ile Gln Arg Ser Ser Ala Lys Pro Ser Ile Arg Cys Phe Ile Lys Pro  
 355 360 365  
 Thr Glu Thr Leu Glu Arg Ser Leu Glu Met Asn Lys His Lys Gly Lys  
 370 375 380  
 Arg Arg Val Gln Lys Arg Pro Asn Tyr Lys Asn Val Gly Glu Glu Glu  
 385 390 395 400  
 Asp Glu Glu Lys Gly Pro Thr Glu Asp Ala Gln Glu Asp Ala Glu Lys  
 405 410 415  
 Ala Lys Gly Thr Glu Gly Gly Ser Lys Gly Ile Lys Thr Ser Gly Glu  
 420 425 430  
 Ser Glu Glu Ile Glu Met Val Ile Met Glu Arg Ser Lys Leu Ser Glu  
 435 440 445  
 Leu Ala Ala Ser Thr Ser Val Gln Glu Gln Asn Thr Thr Asp Glu Glu  
 450 455 460  
 Lys Ser Ala Ala Ala Thr Cys Ser Glu Ser Thr Gln Trp Ser Arg Pro  
 465 470 475 480  
 Phe Leu Asp Met Val Tyr His Ala Leu Asp Ser Pro Asp Asp Asp Tyr  
 485 490 495  
 His Ala Leu Phe Val Leu Cys Leu Leu Tyr Ala Met Ser His Asn Lys  
 500 505 510  
 Gly Met Asp Pro Glu Lys Leu Glu Arg Ile Gln Leu Pro Val Pro Asn  
 515 520 525  
 Ala Ala Glu Lys Thr Thr Tyr Asn His Pro Leu Ala Glu Arg Leu Ile  
 530 535 540  
 Arg Ile Met Asn Asn Ala Ala Gln Pro Asp Gly Lys Ile Arg Leu Ala  
 545 550 555 560  
 Thr Leu Glu Leu Ser Cys Leu Leu Leu Lys Gln Gln Val Leu Met Ser  
 565 570 575  
 Ala Gly Cys Ile Met Lys Asp Val His Leu Ala Cys Leu Glu Gly Ala  
 580 585 590  
 Arg Glu Glu Ser Val His Leu Val Arg His Phe Tyr Lys Gly Glu Asp  
 595 600 605  
 Ile Phe Leu Asp Met Phe Glu Asp Glu Tyr Arg Ser Met Thr Met Lys  
 610 615 620  
 Pro Met Asn Val Glu Tyr Leu Met Met Asp Ala Ser Ile Leu Leu Pro  
 625 630 635 640  
 Pro Thr Gly Thr Pro Leu Thr Gly Ile Asp Phe Val Lys Arg Leu Pro  
 645 650 655

Cys Gly Asp Val Glu Lys Thr Arg Arg Ala Ile Arg Val Phe Phe Met  
 660 665 670  
 Leu Arg Ser Leu Ser Leu Gln Leu Arg Gly Glu Pro Glu Thr Gln Leu  
 675 680 685  
 Pro Leu Thr Arg Glu Glu Asp Leu Ile Lys Thr Asp Asp Val Leu Asp  
 690 695 700  
 Leu Asn Asn Ser Asp Leu Ile Ala Cys Thr Val Ile Thr Lys Asp Gly  
 705 710 715 720  
 Gly Met Val Gln Arg Phe Leu Ala Val Asp Ile Tyr Gln Met Ser Leu  
 725 730 735  
 Val Glu Pro Asp Val Ser Arg Leu Gly Trp Gly Val Val Lys Phe Ala  
 740 745 750  
 Gly Leu Leu Gln Asp Met Gln Val Thr Gly Val Glu Asp Asp Ser Arg  
 755 760 765  
 Ala Leu Asn Ile Thr Ile His Lys Pro Ala Ser Ser Pro His Ser Lys  
 770 775 780  
 Pro Phe Pro Ile Leu Gln Ala Thr Phe Ile Phe Ser Asp His Ile Arg  
 785 790 795 800  
 Cys Ile Ile Ala Lys Gln Arg Leu Ala Lys Gly Arg Ile Gln Ala Arg  
 805 810 815  
 Arg Met Lys Met Gln Arg Ile Ala Ala Leu Leu Asp Leu Pro Ile Gln  
 820 825 830  
 Pro Thr Thr Glu Val Leu Gly Phe Gly Leu Gly Ser Ser Thr Ser Thr  
 835 840 845  
 Gln His Leu Pro Phe Arg Phe Tyr Asp Gln Gly Arg Arg Gly Ser Ser  
 850 855 860  
 Asp Pro Thr Val Gln Arg Ser Val Phe Ala Ser Val Asp Lys Val Pro  
 865 870 875 880  
 Gly Phe Ala Val Ala Gln Cys Ile Asn Gln His Ser Ser Pro Ser Leu  
 885 890 895  
 Ser Ser Gln Ser Pro Pro Ser Ala Ser Gly Ser Pro Ser Gly Ser Gly  
 900 905 910  
 Ser Thr Ser His Cys Asp Ser Gly Gly Thr Ser Ser Ser Ser Thr Pro  
 915 920 925  
 Ser Thr Ala Gln Ser Pro Ala Asp Ala Pro Met Ser Pro Glu Leu Pro  
 930 935 940  
 Lys Pro His Leu Pro Asp Gln Leu Val Ile Val Asn Glu Thr Glu Ala  
 945 950 955 960  
 Asp Ser Lys Pro Ser Lys Asn Val Ala Arg Ser Ala Ala Val Glu Thr  
 965 970 975  
 Ala Ser Leu Ser Pro Ser Leu Val Pro Ala Arg Gln Pro Thr Ile Ser  
 980 985 990  
 Leu Leu Cys Glu Asp Thr Ala Asp Thr Leu Ser Val Glu Ser Leu Thr  
 995 1000 1005  
 Leu Val Pro Pro Val Asp Pro His Ser Leu Arg Ser Leu Thr Gly Met  
 1010 1015 1020  
 Pro Pro Leu Ser Thr Pro Ala Ala Ala Cys Thr Glu Pro Val Gly Glu  
 1025 1030 1035 1040  
 Glu Ala Ala Cys Ala Glu Pro Val Gly Thr Ala Glu Asp \*  
 1045 1050 1053

&lt;210&gt; 1629

&lt;211&gt; 40

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1629

Met His Glu Cys Asn Val His Thr Tyr Ala Ser Leu Phe Cys Leu Phe  
 1 5 10 15  
 Leu Leu His Thr Gly Lys Leu Cys Cys Leu Asn Ser His Arg His Phe  
 20 25 30

His Cys Ile Lys Tyr Ser Lys \*  
 35 39

<210> 1630  
 <211> 227  
 <212> PRT  
 <213> Homo sapiens

<400> 1630  
 Met Ala Thr Ala Met Tyr Leu Glu His Tyr Leu Asp Ser Ile Glu Asn  
 1 5 10 15  
 Leu Pro Cys Glu Leu Gln Arg Asn Phe Gln Leu Met Arg Glu Leu Asp  
 20 25 30  
 Gln Arg Thr Glu Asp Lys Lys Ala Glu Ile Asp Ile Leu Ala Ala Glu  
 35 40 45  
 Tyr Ile Ser Thr Val Lys Thr Leu Ser Pro Asp Gln Arg Val Glu Arg  
 50 55 60  
 Leu Gln Lys Ile Gln Asn Ala Tyr Ser Lys Cys Lys Glu Tyr Ser Asp  
 65 70 75 80  
 Asp Lys Val Gln Leu Ala Met Gln Thr Tyr Glu Met Val Asp Lys His  
 85 90 95  
 Ile Arg Arg Leu Asp Ala Asp Leu Ala Arg Phe Glu Ala Asp Leu Lys  
 100 105 110  
 Asp Lys Met Glu Gly Ser Asp Phe Glu Ser Ser Gly Gly Arg Gly Leu  
 115 120 125  
 Lys Lys Gly Leu Arg Gln Lys Glu Lys Arg Gly Ser Arg Gly Arg Gly  
 130 135 140  
 Arg Arg Thr Ser Glu Glu Asp Thr Pro Lys Lys Lys Lys His Lys Gly  
 145 150 155 160  
 Gly Ser Glu Phe Thr Asp Thr Ile Leu Ser Val His Pro Ser Asp Val  
 165 170 175  
 Leu Asp Met Pro Val Asp Pro Asn Glu Pro Thr Tyr Cys Leu Cys His  
 180 185 190  
 Gln Val Ser Tyr Gly Glu Met Ile Gly Cys Asp Asn Pro Asp Cys Pro  
 195 200 205  
 Ile Glu Trp Phe His Phe Ala Cys Val Asp Leu Thr Thr Lys Pro Lys  
 210 215 220  
 Gly Lys \*  
 225 226

<210> 1631  
 <211> 1280  
 <212> PRT  
 <213> Homo sapiens

<400> 1631  
 Met Pro Ala Val Arg Val Trp Asp Val Ala Glu His Ser Gln Val Ala  
 1 5 10 15  
 Glu Leu Gln Glu His Lys Tyr Gly Val Ala Cys Val Ala Phe Ser Pro  
 20 25 30  
 Ser Ala Lys Tyr Ile Val Ser Val Gly Tyr Gln His Asp Met Ile Val  
 35 40 45  
 Asn Val Trp Ala Trp Lys Lys Asn Ile Val Val Ala Ser Asn Lys Val  
 50 55 60  
 Ser Ser Arg Val Thr Ala Val Ser Phe Ser Glu Asp Cys Ser Tyr Phe  
 65 70 75 80  
 Val Thr Ala Gly Asn Arg His Ile Lys Phe Trp Tyr Leu Asp Asp Ser  
 85 90 95



Lys Thr Ser Lys Val Asn Ala Thr Val Pro Leu Leu Gly Arg Ser Gly  
 100 105 110  
 Leu Leu Gly Glu Leu Arg Asn Asn Leu Phe Thr Asp Val Ala Cys Gly  
 115 120 125  
 Arg Gly Lys Lys Ala Asp Ser Thr Phe Cys Ile Thr Ser Ser Gly Leu  
 130 135 140  
 Leu Cys Glu Phe Ser Asp Arg Arg Leu Leu Asp Lys Trp Val Glu Leu  
 145 150 155 160  
 Arg Val Tyr Pro Glu Val Lys Asp Ser Asn Gln Ala Cys Leu Pro Pro  
 165 170 175  
 Ser Ser Phe Ile Thr Cys Ser Ser Asp Asn Thr Ile Arg Leu Trp Asn  
 180 185 190  
 Thr Glu Ser Ser Gly Val His Gly Ser Thr Leu His Arg Asn Ile Leu  
 195 200 205  
 Ser Ser Asp Leu Ile Lys Ile Ile Tyr Val Asp Gly Asn Thr Gln Ala  
 210 215 220  
 Leu Leu Asp Thr Glu Leu Pro Gly Gly Asp Lys Ala Asp Ala Ser Leu  
 225 230 235 240  
 Leu Asp Pro Arg Val Gly Ile Arg Ser Val Cys Val Ser Pro Asn Gly  
 245 250 255  
 Gln His Leu Ala Ser Gly Asp Arg Met Gly Thr Leu Arg Val His Glu  
 260 265 270  
 Leu Gln Ser Leu Ser Glu Met Leu Lys Val Glu Ala His Asp Ser Glu  
 275 280 285  
 Ile Leu Cys Leu Glu Tyr Ser Lys Pro Asp Thr Gly Leu Lys Leu Leu  
 290 295 300  
 Ala Ser Ala Ser Arg Asp Arg Leu Ile His Val Leu Asp Ala Gly Arg  
 305 310 315 320  
 Glu Tyr Ser Leu Gln Gln Thr Leu Asp Glu His Ser Ser Ser Ile Thr  
 325 330 335  
 Ala Val Lys Phe Ala Ala Ser Asp Gly Gln Val Arg Met Ile Ser Cys  
 340 345 350  
 Gly Ala Asp Lys Ser Ile Tyr Phe Arg Thr Ala Gln Lys Ser Gly Asp  
 355 360 365  
 Gly Val Gln Phe Thr Arg Thr His His Val Val Arg Lys Thr Thr Leu  
 370 375 380  
 Tyr Asp Met Asp Val Glu Pro Ser Trp Lys Tyr Thr Ala Ile Gly Cys  
 385 390 395 400  
 Gln Asp Arg Asn Ile Arg Ile Phe Asn Ile Ser Ser Gly Lys Gln Lys  
 405 410 415  
 Lys Leu Phe Lys Gly Ser Gln Gly Glu Asp Gly Thr Leu Ile Lys Val  
 420 425 430  
 Gln Thr Asp Pro Ser Gly Ile Tyr Ile Ala Thr Ser Cys Ser Asp Lys  
 435 440 445  
 Asn Leu Ser Ile Phe Asp Phe Ser Ser Gly Glu Cys Val Ala Thr Met  
 450 455 460  
 Phe Gly His Ser Glu Ile Val Thr Gly Met Lys Phe Ser Asn Asp Cys  
 465 470 475 480  
 Lys His Leu Ile Ser Val Ser Gly Asp Ser Cys Ile Phe Val Trp Arg  
 485 490 495  
 Leu Ser Ser Glu Met Thr Ile Ser Met Arg Gln Arg Leu Ala Glu Leu  
 500 505 510  
 Arg Gln Arg Gln Arg Gly Gly Lys Gln Gln Gly Pro Ser Ser Pro Gln  
 515 520 525  
 Arg Ala Ser Gly Pro Asn Arg His Gln Ala Pro Ser Met Leu Ser Pro  
 530 535 540  
 Gly Pro Ala Leu Ser Ser Asp Ser Asp Lys Glu Gly Glu Asp Glu Gly  
 545 550 555 560  
 Thr Glu Glu Glu Leu Pro Ala Leu Pro Val Leu Ala Lys Ser Thr Lys  
 565 570 575  
 Lys Ala Leu Ala Ser Val Pro Ser Pro Ala Leu Pro Arg Ser Leu Ser  
 580 585 590  
 His Trp Glu Met Ser Arg Ala Gln Glu Ser Val Gly Phe Leu Asp Pro  
 595 600 605

Ala Pro Ala Ala Asn Pro Gly Pro Arg Arg Arg Gly Arg Trp Val Gln  
 610 615 620  
 Pro Gly Val Glu Leu Ser Val Arg Ser Met Leu Asp Leu Arg Gln Leu  
 625 630 635 640  
 Glu Thr Leu Ala Pro Ser Leu Gln Asp Pro Ser Gln Asp Ser Leu Ala  
 645 650 655  
 Ile Ile Pro Ser Gly Pro Arg Lys His Gly Gln Glu Ala Leu Glu Thr  
 660 665 670  
 Ser Leu Thr Ser Gln Asn Glu Lys Pro Pro Arg Pro Gln Ala Ser Gln  
 675 680 685  
 Pro Cys Ser Tyr Pro His Ile Ile Arg Leu Leu Ser Gln Glu Glu Gly  
 690 695 700  
 Val Phe Ala Gln Asp Leu Glu Pro Ala Pro Ile Glu Asp Gly Ile Val  
 705 710 715 720  
 Tyr Pro Glu Pro Ser Asp Asn Pro Thr Met Asp Thr Ser Glu Phe Gln  
 725 730 735  
 Val Gln Ala Pro Ala Arg Gly Thr Leu Gly Arg Val Tyr Pro Gly Ser  
 740 745 750  
 Arg Ser Ser Glu Lys His Ser Pro Asp Ser Ala Cys Ser Val Asp Tyr  
 755 760 765  
 Ser Ser Ser Cys Leu Ser Ser Pro Glu His Pro Thr Glu Asp Ser Glu  
 770 775 780  
 Ser Thr Glu Pro Leu Ser Val Asp Gly Ile Ser Ser Asp Leu Glu Glu  
 785 790 795 800  
 Pro Ala Glu Gly Asp Glu Glu Glu Glu Glu Glu Gly Gly Met Gly  
 805 810 815  
 Pro Tyr Gly Leu Gln Glu Gly Ser Pro Gln Thr Pro Asp Gln Glu Gln  
 820 825 830  
 Phe Leu Lys Gln His Phe Glu Thr Leu Ala Ser Gly Ala Ala Pro Gly  
 835 840 845  
 Ala Pro Val Gln Val Pro Glu Arg Ser Glu Ser Arg Ser Ile Ser Ser  
 850 855 860  
 Arg Phe Leu Leu Gln Val Gln Thr Arg Pro Leu Arg Glu Pro Ser Pro  
 865 870 875 880  
 Ser Ser Ser Ser Leu Ala Leu Met Ser Arg Pro Ala Gln Val Pro Gln  
 885 890 895  
 Ala Ser Gly Glu Gln Pro Arg Gly Asn Gly Ala Asn Pro Pro Gly Ala  
 900 905 910  
 Pro Pro Glu Val Glu Pro Ser Ser Gly Asn Pro Ser Pro Gln Gln Ala  
 915 920 925  
 Ala Ser Val Leu Leu Pro Arg Cys Arg Leu Asn Pro Asp Ser Ser Trp  
 930 935 940  
 Ala Pro Lys Arg Val Ala Thr Ala Ser Pro Phe Ser Gly Leu Gln Lys  
 945 950 955 960  
 Ala Gln Ser Val His Ser Leu Val Pro Gln Glu Arg His Glu Ala Ser  
 965 970 975  
 Leu Gln Ala Pro Ser Pro Gly Ala Leu Leu Ser Arg Glu Ile Glu Ala  
 980 985 990  
 Gln Asp Gly Leu Gly Ser Leu Pro Pro Ala Asp Gly Pro Pro Ser Arg  
 995 1000 1005  
 Pro His Ser Tyr Gln Asn Pro Thr Thr Ser Ser Met Ala Lys Ile Ser  
 1010 1015 1020  
 Arg Ser Ile Ser Val Gly Glu Asn Leu Gly Leu Val Ala Glu Pro Gln  
 1025 1030 1035 1040  
 Ala His Ala Pro Ile Arg Val Ser Pro Leu Ser Lys Leu Ala Leu Pro  
 1045 1050 1055  
 Ser Arg Ala His Leu Val Leu Asp Ile Pro Lys Pro Leu Pro Asp Arg  
 1060 1065 1070  
 Pro Thr Leu Ala Ala Phe Ser Pro Val Thr Lys Gly Arg Ala Pro Gly  
 1075 1080 1085  
 Glu Ala Glu Lys Pro Gly Phe Pro Val Gly Leu Gly Lys Ala His Ser  
 1090 1095 1100  
 Thr Thr Glu Arg Trp Ala Cys Leu Gly Glu Gly Thr Thr Pro Lys Pro  
 1105 1110 1115 1120

Arg Thr Glu Cys Gln Ala His Pro Gly Pro Ser Ser Pro Cys Ala Gln  
                   1125                  1130                  1135  
 Gln Leu Pro Val Ser Ser Leu Phe Gln Gly Pro Glu Asn Leu Gln Pro  
                   1140                  1145                  1150  
 Pro Pro Pro Glu Lys Thr Pro Asn Pro Met Glu Cys Thr Lys Pro Gly  
                   1155                  1160                  1165  
 Ala Ala Leu Ser Gln Asp Ser Glu Pro Ala Val Ser Leu Glu Gln Cys  
                   1170                  1175                  1180  
 Glu Gln Leu Val Ala Glu Leu Arg Gly Ser Val Arg Gln Ala Val Arg  
 1185                  1190                  1195                  1200  
 Leu Tyr His Ser Val Ala Gly Cys Lys Met Pro Ser Ala Glu Gln Ser  
                   1205                  1210                  1215  
 Arg Ile Ala Gln Leu Leu Arg Asp Thr Phe Ser Ser Val Arg Gln Glu  
                   1220                  1225                  1230  
 Leu Glu Ala Val Ala Gly Ala Val Leu Ser Ser Pro Gly Ser Ser Pro  
                   1235                  1240                  1245  
 Gly Ala Val Gly Ala Glu Gln Thr Gln Ala Leu Leu Glu Gln Tyr Ser  
                   1250                  1255                  1260  
 Glu Leu Leu Leu Arg Ala Val Glu Arg Arg Met Glu Arg Lys Leu \*  
 1265                  1270                  1275                  1279

<210> 1632  
 <211> 224  
 <212> PRT  
 <213> Homo sapiens

<400> 1632  
 Met Gln Phe Ser Phe Gln Gln Gly Gly Trp Gly Ala Ser Leu Ala Asp  
   1                  5                  10                  15  
 Arg Leu Val Arg Lys Cys Asp Val Leu Asn Arg Gly Phe Ser Gly Tyr  
                   20                  25                  30  
 Asn Thr Arg Trp Ala Lys Ile Ile Leu Pro Arg Leu Ile Arg Lys Gly  
                   35                  40                  45  
 Asn Ser Leu Asp Ile Pro Val Ala Val Thr Ile Phe Phe Gly Ala Asn  
                   50                  55                  60  
 Asp Ser Ala Leu Lys Asp Glu Asn Pro Lys Gln His Ile Pro Leu Glu  
                   65                  70                  75                  80  
 Glu Tyr Ala Ala Asn Leu Lys Ser Met Val Gln Tyr Leu Lys Ser Val  
                   85                  90                  95  
 Asp Ile Pro Glu Asn Arg Val Ile Leu Ile Thr Pro Thr Pro Leu Cys  
                   100                  105                  110  
 Glu Thr Ala Trp Glu Glu Gln Cys Ile Ile Gln Gly Cys Lys Leu Asn  
                   115                  120                  125  
 Arg Leu Asn Ser Val Val Gly Glu Tyr Ala Asn Ala Cys Leu Gln Val  
                   130                  135                  140  
 Ala Gln Asp Cys Gly Thr Asp Val Leu Asp Leu Trp Thr Leu Met Gln  
                   145                  150                  155                  160  
 Asp Ser Gln Asp Phe Ser Ser Tyr Leu Ser Asp Gly Leu His Leu Ser  
                   165                  170                  175  
 Pro Lys Gly Asn Glu Phe Leu Phe Ser His Leu Trp Pro Leu Ile Glu  
                   180                  185                  190  
 Lys Lys Val Ser Ser Leu Pro Leu Leu Pro Tyr Trp Arg Asp Val  
                   195                  200                  205  
 Ala Glu Ala Lys Pro Glu Leu Ser Leu Leu Gly Asp Gly Asp His \*  
                   210                  215                  220                  223

<210> 1633  
 <211> 45  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1633

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Met Asn Arg Ala Ala Arg Asn Lys Ser Glu Lys Arg Tyr Tyr Ser Glu
 1           5           10           15
Phe Leu Gln Ile Ala His Leu Phe Asn Tyr Gly Leu Ser Ser Phe Leu
           20           25           30
Arg Glu Phe Ile Ile Phe Leu Ile Lys Leu Leu Gln *
      35           40           44

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&lt;210&gt; 1634

&lt;211&gt; 210

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1634

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Met Ala Ala Pro Arg Gln Ile Pro Ser His Ile Val Arg Leu Lys Pro
 1           5           10           15
Ser Cys Ser Thr Asp Ser Ser Phe Thr Arg Thr Pro Val Pro Thr Val
           20           25           30
Ser Leu Ala Ser Arg Glu Leu Pro Val Ser Ser Trp Gln Val Thr Glu
      35           40           45
Pro Ser Ser Lys Asn Leu Trp Glu Gln Ile Cys Lys Glu Tyr Glu Ala
      50           55           60
Glu Gln Pro Pro Phe Pro Glu Gly Tyr Lys Val Lys Gln Glu Pro Val
      65           70           75           80
Ile Thr Val Ala Pro Val Glu Glu Met Leu Phe His Gly Phe Ser Ala
           85           90           95
Glu His Tyr Phe Pro Val Ser His Phe Thr Met Ile Ser Arg Thr Pro
           100           105           110
Cys Pro Gln Asp Lys Ser Glu Thr Ile Asn Pro Lys Thr Cys Ser Pro
           115           120           125
Lys Glu Tyr Leu Glu Thr Phe Ile Phe Pro Val Leu Leu Pro Gly Met
           130           135           140
Ala Ser Leu Leu His Gln Ala Lys Lys Glu Lys Cys Phe Glu Val Arg
      145           150           155           160
Cys Asp Pro Glu Ile Gln Glu Leu Arg Gln Trp Gln Lys Lys Leu Arg
           165           170           175
Glu Ala Lys His Ile His Gln Gln Val Lys Ile Phe Trp Ala Lys Gln
           180           185           190
Glu Gln Lys Val Lys Cys Lys Met Glu Asp Asp Gln Tyr Leu Gln Pro
           195           200           205
Arg *
209

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&lt;210&gt; 1635

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1635

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Met Asp Ser Phe Gly Gln Pro Arg Pro Glu Asp Asn Gln Ser Val Val
 1           5           10           15
Arg Arg Met Gln Lys Lys Tyr Trp Lys Thr Lys Gln Val Phe Ile Lys
           20           25           30
Ala Thr Gly Lys Lys Glu Asp Glu His Leu Val Ala Ser Asp Ala Glu
      35           40           45

```

Leu Asp Ala Lys Leu Glu Val Phe His Ser Val Gln Glu Thr Cys Thr  
 50 55 60  
 Glu Leu Leu Lys Ile Ile Glu Lys Tyr Gln Leu Arg Leu Asn Gly Met  
 65 70 75 80  
 Lys Ser \*  
 82

<210> 1636  
 <211> 780  
 <212> PRT  
 <213> Homo sapiens

<400> 1636  
 Met Ala Ala Asn Gly Asp Ser Pro Pro Trp Ser Pro Ala Leu Ala Ala  
 1 5 10 15  
 Glu Gly Arg Gly Ser Ser Cys Glu Ala Ser Val Ser Phe Glu Asp Val  
 20 25 30  
 Thr Val Asp Phe Ser Lys Glu Glu Trp Gln His Leu Asp Pro Ala Gln  
 35 40 45  
 Arg Arg Leu Tyr Trp Asp Val Thr Leu Glu Asn Tyr Ser His Leu Leu  
 50 55 60  
 Ser Val Gly Tyr Gln Ile Pro Lys Ser Glu Ala Ala Phe Lys Leu Glu  
 65 70 75 80  
 Gln Gly Glu Gly Pro Trp Met Leu Glu Gly Glu Ala Pro His Gln Ser  
 85 90 95  
 Cys Ser Gly Glu Ala Ile Gly Lys Met Gln Gln Gln Gly Ile Pro Gly  
 100 105 110  
 Gly Ile Phe Phe His Cys Glu Arg Phe Asp Gln Pro Ile Gly Glu Asp  
 115 120 125  
 Ser Leu Cys Ser Ile Leu Glu Leu Trp Gln Asp Asn Asp Gln Leu  
 130 135 140  
 Glu Gln Arg Gln Glu Asn Gln Asn Asn Leu Leu Ser His Val Lys Val  
 145 150 155 160  
 Leu Ile Lys Glu Arg Gly Tyr Glu His Lys Asn Ile Glu Lys Ile Ile  
 165 170 175  
 His Val Thr Thr Lys Leu Val Pro Ser Ile Lys Arg Leu His Asn Cys  
 180 185 190  
 Asp Thr Ile Leu Lys His Thr Leu Asn Ser His Asn His Asn Arg Asn  
 195 200 205  
 Ser Ala Thr Lys Asn Leu Gly Lys Ile Phe Gly Asn Gly Asn Asn Phe  
 210 215 220  
 Pro His Ser Pro Ser Ser Thr Lys Asn Glu Asn Ala Lys Thr Gly Ala  
 225 230 235 240  
 Asn Ser Cys Glu His Asp His Tyr Glu Lys His Leu Ser His Lys Gln  
 245 250 255  
 Ala Pro Thr His His Gln Lys Ile His Pro Glu Glu Lys Leu Tyr Val  
 260 265 270  
 Cys Thr Glu Cys Val Met Gly Phe Thr Gln Lys Ser His Leu Phe Glu  
 275 280 285  
 His Gln Arg Ile His Ala Gly Glu Lys Ser Arg Glu Cys Asp Lys Ser  
 290 295 300  
 Asn Lys Val Phe Pro Gln Lys Pro Gln Val Asp Val His Pro Ser Val  
 305 310 315 320  
 Tyr Thr Gly Glu Lys Pro Tyr Leu Cys Thr Gln Cys Gly Lys Val Phe  
 325 330 335  
 Thr Leu Lys Ser Asn Leu Ile Thr His Gln Lys Ile His Thr Gly Gln  
 340 345 350  
 Lys Pro Tyr Lys Cys Ser Glu Cys Gly Lys Ala Phe Phe Gln Arg Ser  
 355 360 365  
 Asp Leu Phe Arg His Leu Arg Ile His Thr Gly Glu Lys Pro Tyr Glu  
 370 375 380

Cys Ser Glu Cys Gly Lys Gly Phe Ser Gln Asn Ser Asp Leu Ser Ile  
 385 390 395 400  
 His Gln Lys Thr His Thr Gly Glu Lys His Tyr Glu Cys Asn Glu Cys  
 405 410 415  
 Gly Lys Ala Phe Thr Arg Lys Ser Ala Leu Arg Met His Gln Arg Ile  
 420 425 430  
 His Thr Gly Glu Lys Pro Tyr Val Cys Ala Asp Cys Gly Lys Ala Phe  
 435 440 445  
 Ile Gln Lys Ser His Phe Asn Thr His Gln Arg Ile His Thr Gly Glu  
 450 455 460  
 Lys Pro Tyr Glu Cys Ser Asp Cys Gly Lys Ser Phe Thr Lys Lys Ser  
 465 470 475 480  
 Gln Leu His Val His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Ile  
 485 490 495  
 Cys Thr Glu Cys Gly Lys Val Phe Thr His Arg Thr Asn Leu Thr Thr  
 500 505 510  
 His Gln Lys Thr His Thr Gly Glu Lys Pro Tyr Met Cys Ala Glu Cys  
 515 520 525  
 Gly Lys Ala Phe Thr Asp Gln Ser Asn Leu Ile Lys His Gln Lys Thr  
 530 535 540  
 His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Gly Cys Gly Lys Ala Phe  
 545 550 555 560  
 Ile Trp Lys Ser Arg Leu Lys Ile His Gln Lys Ser His Ile Gly Glu  
 565 570 575  
 Arg His Tyr Glu Cys Lys Asp Cys Gly Lys Ala Phe Ile Gln Lys Ser  
 580 585 590  
 Thr Leu Ser Val His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Val  
 595 600 605  
 Cys Pro Glu Cys Gly Lys Ala Phe Ile Gln Lys Ser His Phe Ile Ala  
 610 615 620  
 His His Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Ser Asp Cys  
 625 630 635 640  
 Gly Lys Cys Phe Thr Lys Lys Ser Gln Leu Arg Val His Gln Lys Ile  
 645 650 655  
 His Thr Gly Glu Lys Pro Asn Ile Cys Ala Glu Cys Gly Lys Ala Phe  
 660 665 670  
 Thr Asp Arg Ser Asn Leu Ile Thr His Gln Lys Ile His Thr Arg Glu  
 675 680 685  
 Lys Pro Tyr Glu Cys Gly Asp Cys Gly Lys Thr Phe Thr Trp Lys Ser  
 690 695 700  
 Arg Leu Asn Ile His Gln Lys Ser His Thr Gly Glu Arg His Tyr Glu  
 705 710 715 720  
 Cys Ser Lys Cys Gly Lys Ala Phe Ile Gln Lys Ala Thr Leu Ser Met  
 725 730 735  
 His Gln Ile Ile His Thr Gly Lys Lys Pro Tyr Ala Cys Thr Glu Cys  
 740 745 750  
 Gln Lys Ala Phe Thr Asp Arg Ser Asn Leu Ile Lys His Gln Lys Met  
 755 760 765  
 His Ser Gly Glu Lys Arg Tyr Lys Ala Ser Asp \*  
 770 775 779

&lt;210&gt; 1637

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1637

Met Ser Gly Arg Gly Lys Gly Gly Lys Gly Leu Gly Lys Gly Gly Ala  
 1 5 10 15  
 Lys Arg His Arg Lys Val Leu Arg Asp Asn Ile Gln Gly Ile Thr Lys  
 20 25 30

Pro Ala Ile Arg Arg Leu Ala Arg Arg Gly Gly Val Lys Arg Ile Ser  
           35                          40                          45  
 Gly Leu Ile Tyr Glu Glu Thr Arg Gly Val Leu Lys Val Phe Leu Glu  
           50                          55                          60  
 Asn Val Ile Arg Asp Ala Val Thr Tyr Thr Glu His Ala Lys Arg Lys  
           65                          70                          75                          80  
 Thr Val Thr Ala Met Asp Val Val Tyr Ala Leu Lys Arg Gln Gly Arg  
                           85                          90                          95  
 Thr Leu Tyr Gly Phe Gly Gly \*  
           100                          103

&lt;210&gt; 1638

&lt;211&gt; 595

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1638

Met Ala Ala Ala Val Leu Arg Asp Ser Thr Ser Val Pro Val Thr Ala  
   1                          5                          10                          15  
 Glu Ala Lys Leu Met Gly Phe Thr Gln Gly Cys Val Thr Phe Glu Asp  
           20                          25                          30  
 Val Ala Ile Tyr Phe Ser Gln Glu Glu Trp Gly Leu Leu Asp Glu Ala  
           35                          40                          45  
 Gln Arg Leu Leu Tyr Arg Asp Val Met Leu Glu Asn Phe Ala Leu Ile  
           50                          55                          60  
 Thr Ala Leu Val Cys Trp His Gly Met Glu Asp Glu Glu Thr Pro Glu  
           65                          70                          75                          80  
 Gln Ser Val Ser Val Glu Gly Val Pro Gln Val Arg Thr Pro Glu Ala  
                           85                          90                          95  
 Ser Pro Ser Thr Gln Lys Ile Gln Ser Cys Asp Met Cys Val Pro Phe  
           100                          105                          110  
 Leu Thr Asp Ile Leu His Leu Thr Asp Leu Pro Gly Gln Glu Leu Tyr  
           115                          120                          125  
 Leu Thr Gly Ala Cys Ala Val Phe His Gln Asp Gln Lys His His Ser  
           130                          135                          140  
 Ala Glu Lys Pro Leu Glu Ser Asp Met Asp Lys Ala Ser Phe Val Gln  
           145                          150                          155                          160  
 Cys Cys Leu Phe His Glu Ser Gly Met Pro Phe Thr Ser Ser Glu Val  
                           165                          170                          175  
 Gly Lys Asp Phe Leu Ala Pro Leu Gly Ile Leu Gln Pro Gln Ala Ile  
           180                          185                          190  
 Ala Asn Tyr Glu Lys Pro Asn Lys Ile Ser Lys Cys Glu Glu Ala Phe  
           195                          200                          205  
 His Val Gly Ile Ser His Tyr Lys Trp Ser Gln Cys Arg Arg Glu Ser  
           210                          215                          220  
 Ser His Lys His Thr Phe Phe His Pro Arg Val Cys Thr Gly Lys Arg  
           225                          230                          235                          240  
 Leu Tyr Glu Ser Ser Lys Cys Gly Lys Ala Cys Cys Cys Glu Cys Ser  
                           245                          250                          255  
 Leu Val Gln Leu Gln Arg Val His Pro Gly Glu Arg Pro Tyr Glu Cys  
           260                          265                          270  
 Ser Glu Cys Gly Lys Ser Phe Ser Gln Thr Ser His Leu Asn Asp His  
           275                          280                          285  
 Arg Arg Ile His Thr Gly Glu Arg Pro Tyr Val Cys Gly Gln Cys Gly  
           290                          295                          300  
 Lys Ser Phe Ser Gln Arg Ala Thr Leu Ile Lys His His Arg Val His  
           305                          310                          315                          320  
 Thr Gly Glu Arg Pro Tyr Glu Cys Gly Glu Cys Gly Lys Ser Phe Ser  
                           325                          330                          335  
 Gln Ser Ser Asn Leu Ile Glu His Cys Arg Ile His Thr Gly Glu Arg  
           340                          345                          350

Pro Tyr Glu Cys Asp Glu Cys Gly Lys Ala Phe Gly Ser Lys Ser Thr  
 355 360 365  
 Leu Val Arg His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys  
 370 375 380  
 Gly Glu Cys Gly Lys Leu Phe Arg Gln Ser Phe Ser Leu Val Val His  
 385 390 395 400  
 Gln Arg Ile His Thr Thr Ala Arg Pro Tyr Glu Cys Gly Gln Cys Gly  
 405 410 415  
 Lys Ser Phe Ser Leu Lys Cys Gly Leu Ile Gln His Gln Leu Ile His  
 420 425 430  
 Ser Gly Ala Arg Pro Phe Glu Cys Asp Glu Cys Gly Lys Ser Phe Ser  
 435 440 445  
 Gln Arg Thr Thr Leu Asn Lys His His Lys Val His Thr Ala Glu Arg  
 450 455 460  
 Pro Tyr Val Cys Gly Glu Cys Gly Lys Ala Phe Met Phe Lys Ser Lys  
 465 470 475 480  
 Leu Val Arg His Gln Arg Thr His Thr Gly Glu Arg Pro Phe Glu Cys  
 485 490 495  
 Ser Glu Cys Gly Lys Phe Phe Arg Gln Ser Tyr Thr Leu Val Glu His  
 500 505 510  
 Gln Lys Ile His Thr Gly Leu Arg Pro Tyr Asp Cys Gly Gln Cys Gly  
 515 520 525  
 Lys Ser Phe Ile Gln Lys Ser Ser Leu Ile Gln His Gln Val Val His  
 530 535 540  
 Thr Gly Glu Arg Pro Tyr Glu Cys Gly Lys Cys Gly Lys Ser Phe Thr  
 545 550 555 560  
 Gln His Ser Gly Leu Ile Leu His Arg Lys Ser His Thr Val Glu Arg  
 565 570 575  
 Pro Arg Asp Ser Ser Lys Cys Gly Lys Pro Tyr Ser Pro Arg Ser Asn  
 580 585 590  
 Ile Val \*  
 594

<210> 1639  
 <211> 213  
 <212> PRT  
 <213> Homo sapiens

<400> 1639  
 Met Ala Gly Pro Gly Pro Gly Pro Gly Asp Pro Asp Glu Gln Tyr Asp  
 1 5 10 15  
 Phe Leu Phe Lys Leu Val Leu Val Gly Asp Ala Ser Val Gly Lys Thr  
 20 25 30  
 Cys Val Val Gln Arg Phe Lys Thr Gly Ala Phe Ser Glu Arg Gln Gly  
 35 40 45  
 Ser Thr Ile Gly Val Asp Phe Thr Met Lys Thr Leu Glu Ile Gln Gly  
 50 55 60  
 Lys Arg Val Lys Leu Gln Ile Trp Asp Thr Ala Gly Gln Glu Arg Phe  
 65 70 75 80  
 Arg Thr Ile Thr Gln Ser Tyr Tyr Arg Ser Ala Asn Gly Ala Ile Leu  
 85 90 95  
 Ala Tyr Asp Ile Thr Lys Arg Ser Ser Phe Leu Ser Val Pro His Trp  
 100 105 110  
 Ile Glu Asp Val Arg Lys Tyr Ala Gly Ser Asn Ile Val Gln Leu Leu  
 115 120 125  
 Ile Gly Asn Lys Ser Asp Leu Ser Glu Leu Arg Glu Val Ser Leu Ala  
 130 135 140  
 Glu Ala Gln Ser Leu Ala Glu His Tyr Asp Ile Leu Cys Ala Ile Glu  
 145 150 155 160  
 Thr Ser Ala Lys Asp Ser Ser Asn Val Glu Glu Ala Phe Leu Arg Val  
 165 170 175



Ala Thr Glu Leu Ile Met Arg His Gly Gly Pro Leu Phe Ser Glu Lys  
                   180                  185                  190  
 Ser Pro Asp His Ile Gln Leu Asn Ser Lys Asp Ile Gly Glu Gly Trp  
                   195                  200                  205  
 Gly Cys Gly Cys \*  
           210          212

<210> 1640  
 <211> 41  
 <212> PRT  
 <213> Homo sapiens

<400> 1640  
 Met His Thr Thr Ala Ser Asn Gly Arg Met Leu Phe Met Lys Val Thr  
   1                  5                  10                  15  
 Met Tyr Met Arg Arg Gly Val Gln Ile Met Gly Trp Ser Val Arg Met  
                   20                  25                  30  
 Ala Phe Met Ala Cys Phe Thr Gln \*  
           35                  40

<210> 1641  
 <211> 251  
 <212> PRT  
 <213> Homo sapiens

<400> 1641  
 Met Ala Trp Gln Val Ser Leu Leu Glu Leu Glu Asp Arg Leu Gln Cys  
   1                  5                  10                  15  
 Pro Ile Cys Leu Glu Val Phe Lys Glu Ser Leu Met Leu Gln Cys Gly  
                   20                  25                  30  
 His Ser Tyr Cys Lys Gly Cys Leu Val Ser Leu Ser Tyr His Leu Asp  
           35                  40                  45  
 Thr Lys Val Arg Cys Pro Met Cys Trp Gln Val Val Asp Gly Ser Ser  
           50                  55                  60  
 Ser Leu Pro Asn Val Ser Leu Ala Trp Val Ile Glu Ala Leu Arg Leu  
   65                  70                  75                  80  
 Pro Gly Asp Pro Glu Pro Lys Val Cys Val His His Arg Asn Pro Leu  
                   85                  90                  95  
 Ser Leu Phe Cys Glu Lys Asp Gln Glu Leu Ile Cys Gly Leu Cys Gly  
           100                  105                  110  
 Leu Leu Gly Ser His Gln His His Pro Val Thr Pro Val Ser Thr Val  
           115                  120                  125  
 Cys Ser Arg Met Lys Glu Glu Leu Ala Ala Leu Phe Ser Glu Leu Lys  
           130                  135                  140  
 Gln Glu Gln Lys Lys Val Asp Glu Leu Ile Ala Lys Leu Val Lys Asn  
  145                  150                  155                  160  
 Arg Thr Arg Ile Val Asn Glu Ser Asp Val Phe Ser Trp Val Ile Arg  
                   165                  170                  175  
 Arg Glu Phe Gln Glu Leu Arg His Pro Val Asp Glu Glu Gln Ala Arg  
           180                  185                  190  
 Cys Leu Glu Gly Ile Gly Gly His Thr Arg Gly Leu Val Ala Ser Leu  
           195                  200                  205  
 Asp Met Gln Leu Glu Gln Ala Gln Gly Thr Arg Glu Arg Leu Ala Gln  
   210                  215                  220  
 Ala Trp Cys Val Leu Glu Gln Phe Gly Asn Glu Asp His His Glu Phe  
  225                  230                  235                  240  
 Ile Trp Lys Phe His Ser Met Ala Ser Arg \*  
                   245                  250

<210> 1642  
 <211> 306  
 <212> PRT  
 <213> Homo sapiens

<400> 1642  
 Met Ala Pro Leu Asp Leu Asp Lys Tyr Val Glu Ile Ala Arg Leu Cys  
 1 5 10 15  
 Lys Tyr Leu Pro Glu Asn Asp Leu Lys Arg Leu Cys Asp Tyr Val Cys  
 20 25 30  
 Asp Leu Leu Leu Glu Glu Ser Asn Val Gln Pro Val Ser Thr Pro Val  
 35 40 45  
 Thr Val Cys Gly Asp Ile His Gly Gln Phe Tyr Asp Leu Cys Glu Leu  
 50 55 60  
 Phe Arg Thr Gly Gly Gln Val Pro Asp Thr Asn Tyr Ile Phe Met Gly  
 65 70 75 80  
 Asp Phe Val Asp Arg Gly Tyr Tyr Ser Leu Glu Thr Phe Thr Tyr Leu  
 85 90 95  
 Leu Ala Leu Lys Ala Lys Trp Pro Asp Arg Ile Thr Leu Leu Arg Gly  
 100 105 110  
 Asn His Glu Ser Arg Gln Ile Thr Gln Val Tyr Gly Phe Tyr Asp Glu  
 115 120 125  
 Cys Gln Thr Lys Tyr Gly Asn Ala Asn Ala Trp Arg Tyr Cys Thr Lys  
 130 135 140  
 Val Phe Asp Met Leu Thr Val Ala Ala Leu Ile Asp Glu Gln Ile Leu  
 145 150 155 160  
 Cys Val His Gly Gly Leu Ser Pro Asp Ile Lys Thr Leu Asp Gln Ile  
 165 170 175  
 Arg Thr Ile Glu Arg Asn Gln Glu Ile Pro His Lys Gly Ala Phe Cys  
 180 185 190  
 Asp Leu Val Trp Ser Asp Pro Glu Asp Val Asp Thr Trp Ala Ile Ser  
 195 200 205  
 Pro Arg Gly Ala Gly Trp Leu Phe Gly Ala Lys Val Thr Asn Glu Phe  
 210 215 220  
 Val His Ile Asn Asn Leu Lys Leu Ile Cys Arg Ala His Gln Leu Val  
 225 230 235 240  
 His Glu Gly Tyr Lys Phe Met Phe Asp Glu Lys Leu Val Thr Val Trp  
 245 250 255  
 Ser Ala Pro Asn Tyr Cys Tyr Arg Cys Gly Asn Ile Ala Ser Ile Met  
 260 265 270  
 Val Phe Lys Asp Val Asn Thr Arg Glu Pro Lys Leu Phe Arg Ala Val  
 275 280 285  
 Pro Asp Ser Glu Arg Val Ile Pro Pro Arg Thr Thr Thr Pro Tyr Phe  
 290 295 300  
 Leu \*  
 305

<210> 1643  
 <211> 528  
 <212> PRT  
 <213> Homo sapiens

<400> 1643  
 Met Thr Ala Glu Leu Arg Glu Ala Met Ala Leu Ala Pro Trp Gly Pro  
 1 5 10 15  
 Val Lys Val Lys Lys Glu Glu Glu Glu Glu Glu Asn Phe Pro Gly Gln  
 20 25 30

3496

<210> 1644  
 <211> 641  
 <212> PRT  
 <213> Homo sapiens

<400> 1644  
 Met Ala Glu Ala Ala Leu Val Asn Thr Pro Gln Ile Pro Met Val Thr  
 1 5 10 15  
 Glu Glu Phe Val Lys Pro Ser Gln Gly His Val Thr Phe Glu Asp Ile  
 20 25 30  
 Ala Val Tyr Phe Ser Gln Glu Glu Trp Gly Leu Leu Asp Glu Ala Gln  
 35 40 45  
 Arg Cys Leu Tyr His Asp Val Met Leu Glu Asn Phe Ser Leu Met Ala  
 50 55 60  
 Ser Val Gly Cys Leu His Gly Ile Glu Ala Glu Glu Ala Pro Ser Glu  
 65 70 75 80  
 Gln Thr Leu Ser Ala Gln Gly Val Ser Gln Ala Arg Thr Pro Lys Leu  
 85 90 95  
 Gly Pro Ser Ile Pro Asn Ala His Ser Cys Glu Met Cys Ile Leu Val  
 100 105 110  
 Met Lys Asp Ile Leu Tyr Leu Ser Glu His Gln Gly Thr Leu Pro Trp  
 115 120 125  
 Gln Lys Pro Tyr Thr Ser Val Ala Ser Gly Lys Trp Phe Ser Phe Gly  
 130 135 140  
 Ser Asn Leu Gln Gln His Gln Asn Gln Asp Ser Gly Glu Lys His Ile  
 145 150 155 160  
 Arg Lys Glu Glu Ser Ser Ala Leu Leu Leu Asn Ser Cys Lys Ile Pro  
 165 170 175  
 Leu Ser Asp Asn Leu Phe Pro Cys Lys Asp Val Glu Lys Asp Phe Pro  
 180 185 190  
 Thr Ile Leu Gly Leu Leu Gln His Gln Thr Thr His Ser Arg Gln Glu  
 195 200 205  
 Tyr Ala His Arg Ser Arg Glu Thr Phe Gln Gln Arg Arg Tyr Lys Cys  
 210 215 220  
 Glu Gln Val Phe Asn Glu Lys Val His Val Thr Glu His Gln Arg Val  
 225 230 235 240  
 His Thr Gly Glu Lys Ala Tyr Lys Arg Arg Glu Tyr Gly Lys Ser Leu  
 245 250 255  
 Asn Ser Lys Tyr Leu Phe Val Glu His Gln Arg Thr His Asn Ala Glu  
 260 265 270  
 Lys Pro Tyr Val Cys Asn Ile Cys Gly Lys Ser Phe Leu His Lys Gln  
 275 280 285  
 Thr Leu Val Gly His Gln Gln Arg Ile His Thr Arg Glu Arg Ser Tyr  
 290 295 300  
 Val Cys Ile Glu Cys Gly Lys Ser Leu Ser Ser Lys Tyr Ser Leu Val  
 305 310 315 320  
 Glu His Gln Arg Thr His Asn Gly Glu Lys Pro Tyr Val Cys Asn Val  
 325 330 335  
 Cys Gly Lys Ser Phe Arg His Lys Gln Thr Phe Val Gly His Gln Gln  
 340 345 350  
 Arg Ile His Thr Gly Glu Arg Pro Tyr Val Cys Met Glu Cys Gly Lys  
 355 360 365  
 Ser Phe Ile His Ser Tyr Asp Arg Ile Arg His Gln Arg Val His Thr  
 370 375 380  
 Gly Glu Gly Ala Tyr Gln Cys Ser Glu Cys Gly Lys Ser Phe Ile Tyr  
 385 390 395 400  
 Lys Gln Ser Leu Leu Asp His His Arg Ile His Thr Gly Glu Arg Pro  
 405 410 415  
 Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe Ile His Lys Lys Arg Leu  
 420 425 430  
 Leu Glu His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Val Cys Ile  
 435 440 445

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Ile Cys Gly Lys Ser Phe Ile Arg Ser Ser Asp Tyr Met Arg His Gln
 450                               455                               460
Arg Ile His Thr Gly Glu Arg Ala Tyr Glu Cys Ser Asp Cys Gly Lys
465                               470                               475                               480
Ala Phe Ile Ser Lys Gln Thr Leu Leu Lys His His Lys Ile His Thr
                               485                               490                               495
Arg Glu Arg Pro Tyr Glu Cys Ser Glu Cys Gly Lys Gly Phe Tyr Leu
                               500                               505                               510
Glu Val Lys Leu Leu Gln His Gln Arg Ile His Thr Arg Glu Gln Leu
                               515                               520                               525
Cys Glu Cys Asn Glu Cys Gly Lys Val Phe Ser His Gln Lys Arg Leu
530                               535                               540
Leu Glu His Gln Lys Val His Thr Gly Glu Lys Pro Cys Glu Cys Ser
545                               550                               555                               560
Glu Cys Gly Lys Cys Phe Arg His Arg Thr Ser Leu Ile Gln His Gln
                               565                               570                               575
Lys Val His Ser Gly Glu Arg Pro Tyr Asn Cys Thr Ala Cys Glu Lys
                               580                               585                               590
Ala Phe Ile Tyr Lys Asn Lys Leu Val Glu His Gln Arg Ile His Thr
595                               600                               605
Gly Glu Lys Pro Tyr Glu Cys Gly Lys Cys Gly Lys Ala Phe Asn Lys
610                               615                               620
Arg Tyr Ser Leu Val Arg His Gln Lys Val His Ile Thr Glu Glu Pro
625                               630                               635                               640

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<210> 1645
<211> 822
<212> PRT
<213> Homo sapiens

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<400> 1645
Met Lys Ser Asn Gln Glu Arg Ser Asn Glu Cys Leu Pro Pro Lys Lys
 1                               5                               10                               15
Arg Glu Ile Pro Ala Thr Ser Arg Ser Ser Glu Glu Lys Ala Pro Thr
                               20                               25                               30
Leu Pro Ser Asp Asn His Arg Val Glu Gly Thr Ala Trp Leu Pro Gly
35                               40                               45
Asn Pro Gly Gly Arg Gly His Gly Gly Gly Arg His Gly Pro Ala Gly
50                               55                               60
Thr Ser Val Glu Leu Gly Leu Gln Gln Gly Ile Gly Leu His Lys Ala
65                               70                               75                               80
Leu Ser Thr Gly Leu Asp Tyr Ser Pro Pro Ser Ala Pro Arg Ser Val
                               85                               90                               95
Pro Val Ala Thr Thr Leu Pro Ala Ala Tyr Ala Thr Pro Gln Pro Gly
100                               105                               110
Thr Pro Val Ser Pro Val Gln Tyr Ala His Leu Pro His Thr Phe Gln
115                               120                               125
Phe Ile Gly Ser Ser Gln Tyr Ser Gly Thr Tyr Ala Ser Phe Ile Pro
130                               135                               140
Ser Gln Leu Ile Pro Pro Thr Ala Asn Pro Val Thr Ser Ala Val Ala
145                               150                               155                               160
Ser Ala Ala Gly Ala Thr Thr Pro Ser Gln Arg Ser Gln Leu Glu Ala
165                               170                               175
Tyr Ser Thr Leu Leu Ala Asn Met Gly Ser Leu Ser Gln Thr Pro Gly
180                               185                               190
His Lys Ala Glu Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
195                               200                               205
Gln Gln Gln Gln Gln Gln His Gln Gln Gln Gln Gln Gln Gln Gln
210                               215                               220

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Gln	Gln	Gln	Gln	Gln	Gln	Gln	His	Leu	Ser	Arg	Ala	Pro	Gly	Leu	Ile
225					230					235					240
Thr	Pro	Gly	Ser	Pro	Pro	Pro	Ala	Gln	Gln	Asn	Gln	Tyr	Val	His	Ile
				245					250					255	
Ser	Ser	Ser	Pro	Gln	Asn	Thr	Gly	Arg	Thr	Ala	Ser	Pro	Pro	Ala	Ile
			260					265					270		
Pro	Val	His	Leu	His	Pro	His	Gln	Thr	Met	Ile	Pro	His	Thr	Leu	Thr
		275					280					285			
Leu	Gly	Pro	Pro	Ser	Gln	Val	Val	Met	Gln	Tyr	Ala	Asp	Ser	Gly	Ser
	290					295					300				
His	Phe	Val	Pro	Arg	Glu	Ala	Thr	Lys	Lys	Ala	Glu	Ser	Ser	Arg	Leu
305					310					315					320
Gln	Gln	Ala	Ile	Gln	Ala	Lys	Glu	Val	Leu	Asn	Gly	Glu	Met	Glu	Lys
				325					330					335	
Ser	Arg	Arg	Tyr	Gly	Ala	Pro	Ser	Ser	Ala	Asp	Leu	Gly	Leu	Gly	Lys
			340					345					350		
Ala	Gly	Gly	Lys	Ser	Val	Pro	His	Pro	Tyr	Glu	Ser	Arg	His	Val	Val
			355				360					365			
Val	His	Pro	Ser	Pro	Ser	Asp	Tyr	Ser	Ser	Arg	Asp	Pro	Ser	Gly	Val
	370					375					380				
Arg	Ala	Ser	Val	Met	Val	Leu	Pro	Asn	Ser	Asn	Thr	Pro	Ala	Ala	Asp
385					390					395					400
Leu	Glu	Val	Gln	Gln	Ala	Thr	His	Arg	Glu	Ala	Ser	Pro	Ser	Thr	Leu
				405					410					415	
Asn	Asp	Lys	Ser	Gly	Leu	His	Leu	Gly	Lys	Pro	Gly	His	Arg	Ser	Tyr
			420					425					430		
Ala	Leu	Ser	Pro	His	Thr	Val	Ile	Gln	Thr	Thr	His	Ser	Ala	Ser	Glu
	435					440						445			
Pro	Leu	Pro	Val	Gly	Leu	Pro	Ala	Thr	Ala	Phe	Tyr	Ala	Gly	Thr	Gln
	450					455				460					
Pro	Pro	Val	Ile	Gly	Tyr	Leu	Ser	Gly	Gln	Gln	Gln	Ala	Ile	Thr	Tyr
465					470					475					480
Ala	Gly	Ser	Leu	Pro	Gln	His	Leu	Val	Ile	Pro	Gly	Thr	Gln	Pro	Leu
				485					490					495	
Leu	Ile	Pro	Val	Gly	Ser	Thr	Asp	Met	Glu	Ala	Ser	Gly	Ala	Ala	Pro
		500						505					510		
Ala	Ile	Val	Thr	Ser	Ser	Pro	Gln	Phe	Ala	Ala	Val	Pro	His	Thr	Phe
	515						520					525			
Val	Thr	Thr	Ala	Leu	Pro	Lys	Ser	Glu	Asn	Phe	Asn	Pro	Glu	Ala	Leu
	530					535					540				
Val	Thr	Gln	Ala	Ala	Tyr	Pro	Ala	Met	Val	Gln	Ala	Gln	Ile	His	Leu
545					550					555					560
Pro	Val	Val	Gln	Ser	Val	Ala	Ser	Pro	Ala	Ala	Ala	Pro	Pro	Thr	Leu
				565					570					575	
Pro	Pro	Tyr	Phe	Met	Lys	Gly	Ser	Ile	Ile	Gln	Leu	Ala	Asn	Gly	Glu
			580					585					590		
Leu	Lys	Lys	Val	Glu	Asp	Leu	Lys	Thr	Glu	Asp	Phe	Ile	Gln	Ser	Ala
	595						600					605			
Glu	Ile	Ser	Asn	Asp	Leu	Lys	Ile	Asp	Ser	Ser	Thr	Val	Glu	Arg	Ile
	610					615					620				
Glu	Asp	Ser	His	Ser	Pro	Gly	Val	Ala	Val	Ile	Gln	Phe	Ala	Val	Gly
625					630					635					640
Glu	His	Arg	Ala	Gln	Val	Ser	Val	Glu	Val	Leu	Val	Glu	Tyr	Pro	Phe
				645					650					655	
Phe	Val	Phe	Gly	Gln	Gly	Trp	Ser	Ser	Cys	Cys	Pro	Glu	Arg	Thr	Ser
			660					665					670		
Gln	Leu	Phe	Asp	Leu	Pro	Cys	Ser	Lys	Leu	Ser	Val	Gly	Asp	Val	Cys
	675						680					685			
Ile	Ser	Leu	Thr	Leu	Lys	Asn	Leu	Lys	Asn	Gly	Ser	Val	Lys	Lys	Gly
	690					695					700				
Gln	Pro	Val	Asp	Pro	Ala	Ser	Val	Leu	Leu	Lys	His	Ser	Lys	Ala	Asp
705					710					715					720
Gly	Leu	Ala	Gly	Ser	Arg	His	Arg	Tyr	Ala	Glu	Gln	Glu	Asn	Gly	Ile
				725					730					735	

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Asn Gln Gly Ser Ala Gln Met Leu Ser Glu Asn Gly Glu Leu Lys Phe
      740      745      750
Pro Glu Lys Met Gly Leu Ser Ala Ala Pro Phe Leu Thr Lys Ile Glu
      755      760      765
Pro Ser Lys Pro Ala Ala Thr Arg Lys Arg Arg Trp Ser Ala Pro Glu
      770      775      780
Ser Arg Lys Leu Glu Lys Ser Glu Asp Glu Pro Pro Leu Thr Leu Pro
      785      790      795      800
Lys Pro Ser Leu Ile Pro Gln Glu Val Lys Ile Cys Ile Glu Gly Arg
      805      810      815
Ser Asn Val Gly Lys *
      820 821

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<210> 1646
<211> 224
<212> PRT
<213> Homo sapiens

```

```

<400> 1646
Met Thr Pro Leu Asp Leu Lys Phe Gln Tyr Glu Glu Thr Arg Ser Gln
  1      5      10      15
Gln Gly Ser Val Gly Glu Arg Cys Ser Ala Lys Trp Ala Leu Arg Gln
      20      25      30
Arg Ile Cys Ala Glu Ala Phe Arg Ala Cys Lys Cys Cys Glu Pro Arg
      35      40      45
Gly Ser Arg Ala Arg Phe Gly Cys Trp Arg Leu Gln Pro Glu Phe Lys
      50      55      60
Pro Lys Gln Leu Glu Gly Thr Met Ala Asn Cys Glu Arg Thr Phe Ile
      65      70      75      80
Ala Ile Lys Pro Asp Gly Val Gln Arg Gly Leu Val Gly Glu Ile Ile
      85      90      95
Lys Arg Phe Glu Gln Lys Gly Phe Arg Leu Val Gly Leu Lys Phe Met
      100      105      110
Gln Ala Ser Glu Asp Leu Leu Lys Glu His Tyr Val Asp Leu Lys Asp
      115      120      125
Arg Pro Phe Phe Ala Gly Leu Val Lys Tyr Met His Ser Gly Pro Val
      130      135      140
Val Ala Met Val Trp Glu Gly Leu Asn Val Val Lys Thr Gly Arg Val
      145      150      155      160
Met Leu Gly Glu Thr Asn Pro Ala Asp Ser Lys Pro Gly Thr Ile Arg
      165      170      175
Gly Asp Phe Cys Ile Gln Val Gly Arg Asn Ile Ile His Gly Ser Asp
      180      185      190
Ser Val Glu Ser Ala Glu Lys Glu Ile Gly Leu Trp Phe Arg Pro Glu
      195      200      205
Glu Leu Val Asp Tyr Thr Ser Cys Ala Gln Asn Trp Ile Tyr Glu *
      210      215      220      223

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<210> 1647
<211> 485
<212> PRT
<213> Homo sapiens

```

```

<400> 1647
Met Leu Asn Lys Lys Thr Lys Gln Ile Gln Asp Met Ala Glu Glu Lys
  1      5      10      15
Gly Thr Gln Ala Gly Glu Ile His Asp Leu Lys Asp Met Leu Asp Val
      20      25      30

```

Lys Glu Arg Lys Val Asn Val Leu Gln Lys Lys Ile Glu Asn Leu Gln  
 35 40 45  
 Glu Gln Leu Arg Asp Lys Glu Lys Gln Met Ser Ser Leu Lys Glu Arg  
 50 55 60  
 Val Lys Ser Leu Gln Ala Asp Thr Thr Asn Thr Asp Thr Ala Leu Thr  
 65 70 75 80  
 Thr Leu Glu Glu Ala Leu Ala Glu Lys Glu Arg Thr Ile Glu Arg Leu  
 85 90 95  
 Lys Glu Gln Arg Asp Arg Asp Glu Arg Glu Lys Gln Glu Glu Ile Asp  
 100 105 110  
 Asn Tyr Lys Lys Asp Leu Lys Asp Leu Lys Glu Lys Val Ser Leu Leu  
 115 120 125  
 Gln Gly Asp Leu Ser Glu Lys Glu Ala Ser Leu Leu Asp Leu Lys Glu  
 130 135 140  
 His Ala Ser Ser Leu Ala Ser Ser Gly Leu Lys Lys Asp Ser Arg Leu  
 145 150 155 160  
 Lys Thr Leu Glu Ile Ala Leu Glu Gln Lys Lys Glu Glu Cys Leu Lys  
 165 170 175  
 Met Glu Ser Gln Leu Lys Lys Ala His Glu Ala Ala Leu Glu Ala Arg  
 180 185 190  
 Ala Ser Pro Glu Met Ser Asp Arg Ile Gln His Leu Glu Arg Glu Ile  
 195 200 205  
 Thr Arg Tyr Lys Asp Glu Ser Ser Lys Ala Gln Ala Glu Val Asp Arg  
 210 215 220  
 Leu Leu Glu Ile Leu Lys Glu Val Glu Asn Glu Lys Asn Asp Lys Asp  
 225 230 235 240  
 Lys Lys Ile Ala Glu Leu Glu Ser Leu Thr Ser Arg Gln Val Lys Asp  
 245 250 255  
 Gln Asn Lys Lys Val Ala Asn Leu Lys His Lys Glu Gln Val Glu Lys  
 260 265 270  
 Lys Lys Ser Ala Gln Met Leu Glu Glu Ala Arg Arg Arg Glu Asp Asn  
 275 280 285  
 Leu Asn Asp Ser Ser Gln Gln Leu Gln Asp Ser Leu Arg Lys Lys Asp  
 290 295 300  
 Asp Arg Ile Glu Glu Leu Glu Glu Ala Leu Arg Glu Ser Val Gln Ile  
 305 310 315 320  
 Thr Ala Glu Arg Glu Met Val Leu Ala Gln Glu Glu Ser Ala Arg Thr  
 325 330 335  
 Asn Ala Glu Lys Gln Val Glu Glu Leu Leu Met Ala Met Glu Lys Val  
 340 345 350  
 Lys Gln Glu Leu Glu Ser Met Lys Ala Lys Leu Ser Ser Thr Gln Gln  
 355 360 365  
 Ser Leu Ala Glu Lys Glu Thr His Leu Thr Asn Leu Arg Ala Glu Arg  
 370 375 380  
 Arg Lys His Leu Glu Glu Val Leu Glu Met Lys Gln Glu Ala Leu Leu  
 385 390 395 400  
 Ala Ala Ile Ser Glu Lys Asp Ala Asn Ile Ala Leu Leu Glu Leu Ser  
 405 410 415  
 Ser Ser Lys Lys Lys Thr Gln Glu Glu Val Ala Ala Leu Lys Arg Glu  
 420 425 430  
 Lys Asp Arg Leu Val Gln Gln Leu Lys Gln Gln Thr Gln Asn Arg Met  
 435 440 445  
 Lys Leu Met Ala Asp Asn Tyr Glu Asp Asp His Phe Lys Ser Ser His  
 450 455 460  
 Ser Asn Gln Thr Asn His Lys Pro Ser Pro Asp Gln Asp Glu Glu Glu  
 465 470 475 480  
 Gly Ile Trp Ala \*  
 484

&lt;210&gt; 1648

&lt;211&gt; 428

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 1648

```

Met Gly Thr Pro Lys Pro Arg Ile Leu Pro Trp Leu Val Ser Gln Leu
 1           5           10           15
Asp Leu Gly Gln Leu Glu Gly Val Ala Trp Val Asn Lys Ser Arg Thr
 20           25           30
Arg Phe Arg Ile Pro Trp Lys His Gly Leu Arg Gln Asp Ala Gln Gln
 35           40           45
Glu Asp Phe Gly Ile Phe Gln Ala Trp Ala Glu Ala Thr Gly Ala Tyr
 50           55           60
Val Pro Gly Arg Asp Lys Pro Asp Leu Pro Thr Trp Lys Arg Asn Phe
 65           70           75           80
Arg Ser Ala Leu Asn Arg Lys Glu Gly Leu Arg Leu Ala Glu Asp Arg
 85           90           95
Ser Lys Asp Pro His Asp Pro His Lys Ile Tyr Glu Phe Val Asn Ser
 100          105          110
Gly Val Gly Asp Phe Ser Gln Pro Asp Thr Ser Pro Asp Thr Asn Gly
 115          120          125
Gly Gly Ser Thr Ser Asp Thr Gln Glu Asp Ile Leu Asp Glu Leu Leu
 130          135          140
Gly Asn Met Val Leu Ala Pro Leu Pro Asp Pro Gly Pro Pro Ser Leu
 145          150          155          160
Ala Val Ala Pro Glu Pro Cys Pro Gln Pro Leu Arg Ser Pro Ser Leu
 165          170          175
Asp Asn Pro Thr Pro Phe Pro Asn Leu Gly Pro Ser Glu Asn Pro Leu
 180          185          190
Lys Arg Leu Leu Val Pro Gly Glu Trp Glu Phe Glu Val Thr Ala
 195          200          205
Phe Tyr Arg Gly Arg Gln Val Phe Gln Gln Thr Ile Ser Cys Pro Glu
 210          215          220
Gly Leu Arg Leu Val Gly Ser Glu Val Gly Asp Arg Thr Leu Pro Gly
 225          230          235          240
Trp Pro Val Thr Leu Pro Asp Pro Gly Met Ser Leu Thr Asp Arg Gly
 245          250          255
Val Met Ser Tyr Val Arg His Val Leu Ser Cys Leu Gly Gly Gly Leu
 260          265          270
Ala Leu Trp Arg Ala Gly Gln Trp Leu Trp Ala Gln Arg Leu Gly His
 275          280          285
Cys His Thr Tyr Trp Ala Val Ser Glu Glu Leu Leu Pro Asn Ser Gly
 290          295          300
His Gly Pro Asp Gly Glu Val Pro Lys Asp Lys Glu Gly Gly Val Phe
 305          310          315          320
Asp Leu Gly Pro Phe Ile Val Asp Leu Ile Thr Phe Thr Glu Gly Ser
 325          330          335
Gly Arg Ser Pro Arg Tyr Ala Leu Trp Phe Cys Val Gly Glu Ser Trp
 340          345          350
Pro Gln Asp Gln Pro Trp Thr Lys Arg Leu Val Met Val Lys Val Val
 355          360          365
Pro Thr Cys Leu Arg Ala Leu Val Glu Met Ala Arg Val Gly Gly Ala
 370          375          380
Ser Ser Leu Glu Asn Thr Val Asp Leu His Ile Ser Asn Ser His Pro
 385          390          395          400
Leu Ser Leu Thr Ser Asp Gln Tyr Lys Ala Tyr Leu Gln Asp Leu Val
 405          410          415
Glu Gly Met Asp Phe Gln Gly Pro Gly Glu Ser *
 420          425          427

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&lt;210&gt; 1649

&lt;211&gt; 177

&lt;212&gt; PRT